

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: DONALD TADAZANO Examiner #: 73088 Date: July 10<sup>th</sup>  
Art Unit: 1773 Phone Number 308-2379 Serial Number: 101086 843  
Mail Box and Bldg/Room Location: 11A01 Results Format Preferred (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

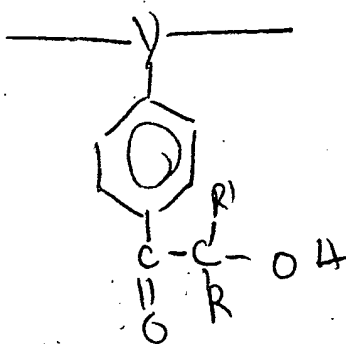
\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: See attached sheetInventors (please provide full names): Attached Data

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Structure search  
as the material relates to  
"curing" a "polymerizing" coating  
composition.



See  
Claim  
2.

## STAFF USE ONLY

Searcher: EL

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: 7-11-03Searcher Prep & Review Time: 5

Clerical Prep Time: \_\_\_\_\_

Online Time: 65

## Type of Search

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#) (3) (subset)Bibliographic (2) (subset)

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

## Vendors and cost where applicable

STN

\$ 310.29

Dialog \_\_\_\_\_

Quester Orbit \_\_\_\_\_

Dr. Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

=> file reg

FILE 'REGISTRY' ENTERED AT 15:18:30 ON 11 JUL 2003  
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FILE 'LREGISTRY' ENTERED AT 14:05:12 ON 11 JUL 2003  
ACT TAR243/Q

L1 STR

FILE 'HCAPLUS' ENTERED AT 14:06:28 ON 11 JUL 2003

L2 17082 S WATARU ?/AU OR MIYAZAKI ?/AU  
L3 1202 S SHIGENOBU ?/AU OR MARUOKA ?/AU  
L4 5 S L2 AND L3  
SEL L4 1-5 RN

FILE 'REGISTRY' ENTERED AT 14:06:55 ON 11 JUL 2003

L5 157 S E1-E157  
L6 4 S L5 AND PMS/CI  
SEL L6 1 RN  
L7 1 S E158

FILE 'CAOLD' ENTERED AT 14:34:51 ON 11 JUL 2003

L13 0 S L7

FILE 'REGISTRY' ENTERED AT 14:36:00 ON 11 JUL 2003

L14 SCR 2043  
L15 22 S L1 AND L14  
L16 323 S L1 AND L14 FUL  
DEL TAR243/Q  
SAV L16 TAR243/A  
L17 26 S L16 AND 1/NC  
E (C13H16O2)X/MF  
L18 59 S E3  
E (C13H16O2)N/MF  
L19 13 S E3  
L20 1 S L17 AND L7  
L21 3 S L17 AND (L18 OR L19)

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L22 STR L1

FILE 'REGISTRY' ENTERED AT 14:55:15 ON 11 JUL 2003

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SAV L24 TAR243A/A

L25 19 S L24 NOT (L21 OR L7)  
 L26 1 S L25 AND 1/NC  
 L27 12 S L25 AND 2/NC  
 L28 291894 S C H/ELF  
 L29 1 S L27 AND L28  
 L30 5 S L21 OR L26 OR L29  
 L31 4 S L30 NOT L7  
 L32 4 POLYLINK L31  
 L33 4 S L31 OR L32

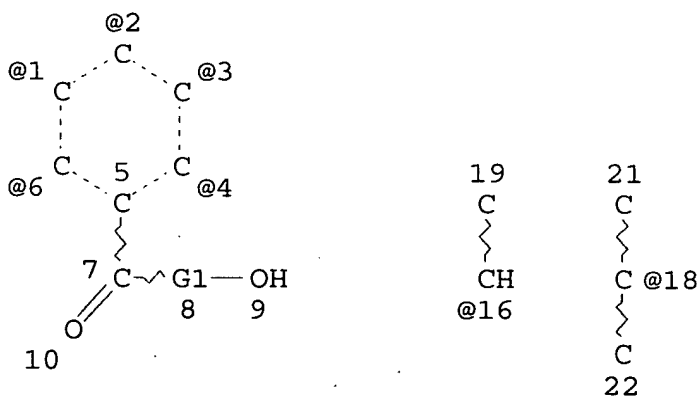
FILE 'HCA' ENTERED AT 15:08:27 ON 11 JUL 2003

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 L35 37 S L7  
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 L36 235398 S E3  
 E COATING PROCESS/CV  
 L37 104889 S E3  
 L38 84211 S ((PHOTO OR LIGHT OR PHOTOLY?) (2A) (RX# OR RXN# OR REACT?  
 L39 93925 S ((ULTRAVIOLET? OR ULTRA(W)VIOLET? OR UV# OR SUV OR LUV  
 L40 149549 S (PHOTORX## OR PHOTOREACT? OR PHOTSENS? OR PHOTOPOLYM?  
 L41 35 S L35 AND (L36 OR L37 OR L38 OR L39 OR L40)  
 L42 19 S L35 AND (L36 OR L37)  
 L43 19 S L42 AND (L38 OR L39 OR L40)  
 L44 19 S L43 NOT L34  
 L45 16 S L41 NOT (L34 OR L44)  
 L46 2 S L35 NOT (L34 OR L44 OR L45)

FILE 'REGISTRY' ENTERED AT 15:18:30 ON 11 JUL 2003

=> d l24 que stat  
L1 STR

A @13



VAR G1=CH2/16/18  
 VPA 13-4/3/2/1/6 U  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

$C=C$   
 @13 23  
 @2  
 @1 C @3  
 C  
 C  
 @6 5 C @4  
 C  
 7 C ~ G1 — OH  
 8 9  
 10  
 19 C  
 CH  
 @16  
 21 C  
 C @18  
 C  
 22

21 ANSWERS

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=> d l34 1-3 cbib abs hitstr hitrn
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L34 ANSWER 1 OF 3 HCA COPYRIGHT 2003 ACS

138:311599 Method for lithographic printing plate making using IR-sensitive direct-imaging negative-working lithographic plate precursors with UV-sensitive polymer. Okamoto, Yasuo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003107751 A2 20030409, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-297070 20010927.

AB The title method includes the steps of: imagewise exposing the lithog. printing plate precursor having an image-forming layer, which contains an IR-absorber, a radical generator, radically polymerizable compds., a binder polymer, and a polymer having an UV-sensitive polymn. initiator, on a hydrophilic support, with IR light; developing the image; and exposing the entire printing plate surface with UV. The printing plate precursor shows high sensitivity and provides the printing plates of high printing durability and little soiling.

IT 136129-18-5

(UV-sensitive polymer in image-forming layer; IR-sensitive direct-imaging neg.-working lithog. plate precursor)

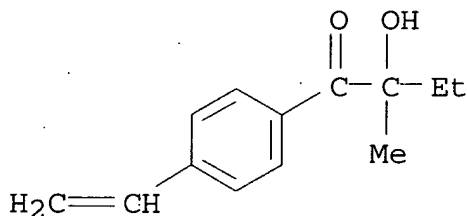
RN 136129-18-5 HCA

CN 1-Butanone, 1-(4-ethenylphenyl)-2-hydroxy-2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 136129-17-4

CMF C13 H16 O2



IT 136129-18-5

(UV-sensitive polymer in image-forming layer; IR-sensitive direct-imaging neg.-working lithog. plate precursor)

L34 ANSWER 2 OF 3 HCA COPYRIGHT 2003 ACS

121:58703 New optimized oligomeric alpha hydroxy acetophenone photoinitiator. Di Battista, Piero; Cattaneo, Massimo; Li Bassi, Giuseppe (Fratelli Lamberti S.p.A., Albizzate, 21041, Italy). RadTech Asia '91, Conf. Proc., 398-403. RadTech Int. North Am.: Northbrook, Ill. (English) 1991. CODEN: 59CNA7.

AB Hydroxy acetophenones represent a high efficient class of photoinitiators that permits to obtain U.V. cured clear acrylated coatings characterized by low yellowing. When oligomeric hydroxy acetophenones are used, some peculiarities are obtained and practical advantages in the cure process are achieved. The

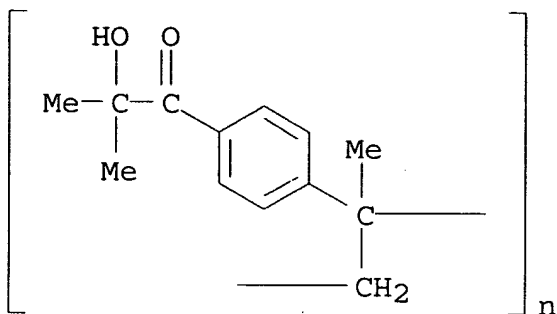
formulation with diluents allows to overcome a troublesome handling derived from the phys. form of the pure oligomeric products but it may restrict the field of application and sometimes unexpected troubles may result. An active diluent that doesn't show any of the afore mentioned limitations can be successfully used.

IT 156292-11-4

(oligomeric, photochem. initiator contg., for crosslinking)

RN 156292-11-4 HCA

CN Poly[1-[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]-1-methyl-1,2-ethanediyl] (9CI) (CA INDEX NAME)



IT 156292-11-4

(oligomeric, photochem. initiator contg., for crosslinking)

L34 ANSWER 3 OF 3 HCA COPYRIGHT 2003 ACS

115:137301 Photoinitiators with functional groups. Part I. Polymer photoinitiators. Klos, R.; Gruber, H.; Greber, G. (Inst. Chem. Technol. Org. Mater., Vienna Univ. Technol., Vienna, 1060, Austria). Journal of Macromolecular Science, Chemistry, A28(9), 925-47 (English) 1991. CODEN: JMCHBD. ISSN: 0022-233X.

AB A series of polymerizable photoinitiators based on hydroxylalkylphenones was synthesized by Grignard reaction of 4-vinylphenylmagnesium chloride with suitable carbonyl compds. Radical homopolymn. and copolymn. of the photoinitiators with various vinyl monomers gave polymeric photoinitiators which were compatible with either hydrophilic or hydrophobic resin systems. The photoinitiator monomers and polymers were characterized by excellent photoinitiating activity comparable with the most efficient known photoinitiators and exhibited high migration stability.

IT 136129-16-3P 136129-18-5P 136129-19-6P

(photoinitiators, prepn. of)

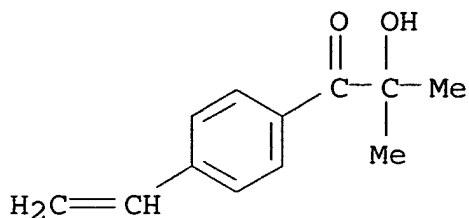
RN 136129-16-3 HCA

CN 1-Propanone, 1-(4-ethenylphenyl)-2-hydroxy-2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-39-2

CMF C12 H14 O2

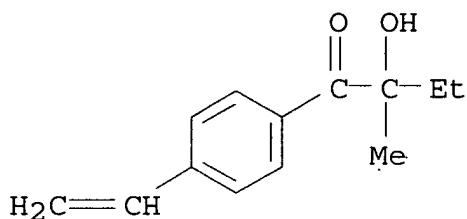


RN 136129-18-5 HCA  
 CN 1-Butanone, 1-(4-ethenylphenyl)-2-hydroxy-2-methyl-, homopolymer  
 (9CI) (CA INDEX NAME)

CM 1

CRN 136129-17-4

CMF C13 H16 O2

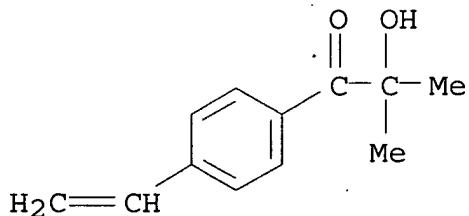


RN 136129-19-6 HCA  
 CN 1-Propanone, 1-(4-ethenylphenyl)-2-hydroxy-2-methyl-, polymer with  
 ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 101649-39-2

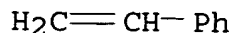
CMF C12 H14 O2



CM 2

CRN 100-42-5

CMF C8 H8



IT 136129-16-3P 136129-18-5P 136129-19-6P  
(photoinitiators, prepn. of)

=> d l44 1-19 cbib abs hitstr hitind

L44 ANSWER 1 OF 19 HCA COPYRIGHT 2003 ACS

137:234143 Transparent **UV curable** coating system.  
Colton, Martin; Batson, Robert (USA). U.S. Pat. Appl. Publ. US  
2002132871 A1 20020919, 14 pp., Cont.-in-part of U.S. Ser. No.  
874,305. (English). CODEN: USXXCO. APPLICATION: US 2002-95041  
20020312. PRIORITY: US 2000-709535 20001113; US 2000-709537  
20001113; US 2001-874305 20010606.

AB A **UV/visible light reactive** coating  
compn. is used for a permanent, hard, durable protective coating to  
stone, ceramic, glass, metal and hard plastics (no data). The  
coating material comprises a blend of photoinitiators, **UV-**  
**curable** resin blends, blends of specific acrylate and  
methacrylate monomers, a wetting agent, UV absorbers and  
stabilizers, a rheol. modifier, adhesive agents, air-release agents  
and self leveling agents with misc. additives to impart specific  
properties.

IT 115055-18-0, Kip 150  
(transparent **UV-curable** coating system  
contg.)

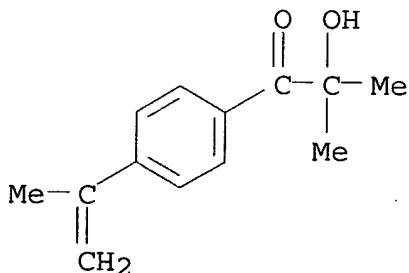
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08F002-48

ICS C08F002-46; C08J003-28; C08G002-00

NCL 522007000

CC 42-10 (Coatings, Inks, and Related Products)



ST UV curable acrylate coating durability  
IT Coating materials  
    (UV-curable; transparent UV-  
    curable coating system for hard surfaces)  
IT Coating materials  
    (abrasion-resistant; transparent UV-curable  
    coating system for hard surfaces)  
IT Polyesters, uses  
    (acrylate-terminated; transparent UV-curable  
    coating system contg.)  
IT Polyethers, uses  
    (acrylates; transparent UV-curable coating  
    system contg.)  
IT Coating materials  
    (antislip; transparent UV-curable coating  
    system for hard surfaces)  
IT Crosslinking catalysts  
    (photochem.; transparent UV-curable coating  
    system contg.)  
IT Coating materials  
    (photocurable; transparent UV-curable  
    coating system for hard surfaces)  
IT Polyurethanes, uses  
    (polyester-, acrylates; transparent UV-curable  
    coating system contg.)  
IT Polyurethanes, uses  
    (polyether-, acrylates; transparent UV-curable  
    coating system contg.)  
IT Adhesion promoters  
    Leveling agents  
    UV stabilizers  
    (transparent UV-curable coating system  
    contg.)  
IT Ceramics  
    (transparent UV-curable coating system for  
    hard surfaces)  
IT Glass, miscellaneous  
    Plastics, miscellaneous  
    Stone, artificial  
    (transparent UV-curable coating system for  
    hard surfaces)  
IT 115055-18-0, Kip 150  
    (transparent UV-curable coating system  
    contg.)  
IT 947-19-3, IRGACURE 184 75980-60-8, 2,4,6-Trimethylbenzoyldiphenyl  
    phosphine oxide 133518-36-2, Esacure TZT 162881-26-7, IRGACURE  
    819  
    (transparent UV-curable coating system  
    contg.)

generation during heating. Miyazaki, Wataru; Maruoka, Shigenobu (Lintec Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002256092 A2 20020911, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-60960 20010305.

AB The films, useful for display protection films, have hard coating layers formed by applying **photocurable** compns. contg. oligomeric photoinitiators on substrates and **photocuring** them. Thus, a 100:5 Kayarad DPHA (dipentaerythritol hexaacrylate)-Esacure KIP 150 [2-hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone oligomer] mixt. was applied to a PET film and UV-irradiated to give a film showing pencil hardness 2H and good adhesion and no gas generation after heating at 150.degree. for 1 h.

IT 115055-18-0, Esacure KIP 150  
(hard coating films manufd. by using oligomeric photoinitiators with good adhesion and reduced gas generation during heating)

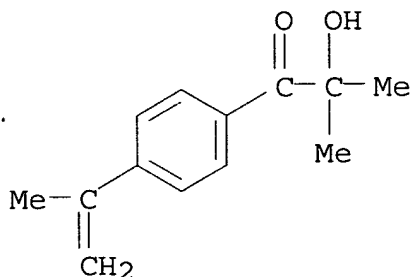
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08J007-04  
ICS C08J007-04; C08F002-50; C08F020-20; C09D004-00; C09D005-00; C09D125-18; C08L101-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

ST hard coating film gas generation redn; oligomer initiator  
**photocuring** film display protection; oligomeric photoinitiator hard coating film adhesion

IT **Coating materials**

(**photocurable**; hard coating films manufd. by using oligomeric photoinitiators with good adhesion and reduced gas generation during heating)

IT Polymerization catalysts

(**photopolymn.**; hard coating films manufd. by using oligomeric photoinitiators with good adhesion and reduced gas generation during heating)

IT 115055-18-0, Esacure KIP 150

(hard coating films manufd. by using oligomeric photoinitiators with good adhesion and reduced gas generation during heating)

L44 ANSWER 3 OF 19 HCA COPYRIGHT 2003 ACS

137:171159 **UV curable** substantially solid deck

sealant and coating compositions. Sokol, Andrew A. (USA). U.S.

Pat. Appl. Publ. US 2002110643 A1 20020815, 10 pp. (English).

CODEN: USXXCO.. APPLICATION: US 2001-908037 20010718.. PRIORITY: US 2000-PV219215 20000718.

AB The compns., for use with wood and, in particular, weathered wood surfaces and other porous surfaces, are prepd. from a mixt. of **UV curable** acrylates, and a photoinitiator blend, further including fillers, fungicides, insect repellents, animal repellents, UV light absorbers, pigments, dyes, and the like. One example of the compns. comprise: aliph. urethane acrylate 8.34, isobornyl acrylate, propoxylated trimethylolpropane triacrylate 76.2, fumed silica 10.0, Disperbyk 163 (a dispersant) 5.0, a fungicide 5.0, Tinuvin 292 (a UV blocker) 0.93, photoinitiator blend of (Irgacure 1800) 0.09, (Irgacure 907) 0.002, (Esacure KTO 46) 0.09 parts.

IT 115055-18-0, 2-Hydroxy-2-methyl-1-[4-(methylvinyl)phenyl]propanone homopolymer (oligomeric, photoinitiator; **UV curable** substantially solid deck sealant and coating compns.)

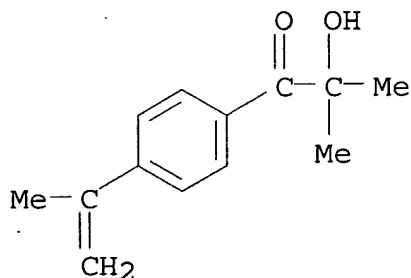
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM B05D003-02

NCL 427384000

CC 42-11 (Coatings, Inks, and Related Products)

ST urethane acrylate photoinitiator wood solid deck coating compn; propoxylated trimethylolpropane triacrylate **UV curable** solid deck sealant compn

IT Fungicides

Wood

Wood boards

(**UV curable** substantially solid deck sealant and coating compns.)

IT **Coating materials**

(**UV-curable; UV curable** substantially solid deck sealant and coating compns.)

IT Polyesters, uses

(acrylate-terminated, polymer with (meth)acrylates; **UV curable** substantially solid deck sealant and coating compns.)

IT Epoxy resins, uses

(acrylates, polymer with (meth)acrylates; **UV curable** substantially solid deck sealant and coating compns.)

IT Polyurethanes; uses

(acrylates, polymer with isobornyl acrylate and propoxylated trimethylolpropane triacrylate; **UV curable** substantially solid deck sealant and coating compns.)

IT Sealing compositions

(**photocurable; UV curable** substantially solid deck sealant and coating compns.)

IT **Polymerization catalysts**

(**photopolymer; UV curable** substantially solid deck sealant and coating compns.)

IT Acrylic polymers, uses

(polyether-, polymer with (meth)acrylates; **UV curable** substantially solid deck sealant and coating compns.)

IT **Coating materials**

Sealing compositions

(weather-resistant; **UV curable** substantially solid deck sealant and coating compns.)

IT 41556-26-7, Tinuvin 292

(**UV blocker; UV curable** substantially solid deck sealant and coating compns.)

IT 5888-33-5DP, Isobornyl acrylate, polymer with aliph. urethane acrylate and propoxylated trimethylolpropane triacrylate

53879-54-2DP, Propoxylated trimethylolpropane triacrylate, polymer with aliph. urethane acrylate and isobornyl acrylate

(**UV curable** substantially solid deck sealant and coating compns.)

IT 7631-86-9, Fumed silica, uses

(colloidal, filler; **UV curable** substantially solid deck sealant and coating compns.)

IT 115452-84-1, Disperbyk 163

(dispersant; **UV curable** substantially solid deck sealant and coating compns.)

IT 115055-18-0, 2-Hydroxy-2-methyl-1-[4-

(methylvinyl)phenyl]propanone homopolymer 446045-07-4

(oligomeric, photoinitiator; **UV curable** substantially solid deck sealant and coating compns.)

IT 98-86-2, Acetophenone, uses 119-61-9, Benzophenone, uses 134-84-9, 4-Methylbenzophenone 947-19-3, 1-(Hydroxycyclohexyl) phenyl ketone 954-16-5, 2,4,6-Trimethylbenzophenone 7473-98-5, 1-Phenyl-2-hydroxy-2-methyl-1-propanone 13840-40-9, Phosphine oxide 24650-42-8, .alpha.,.alpha.-Dimethoxy-.alpha.-phenylacetophenone 162881-26-7 184649-96-5, Irgacure 1800 211431-21-9, Esacure KTO 46 446045-08-5 446045-09-6 (photoinitiator; **UV curable** substantially solid deck sealant and coating compns.)

L44 ANSWER 4 OF 19 HCA COPYRIGHT 2003 ACS

136:119284 **Radiation-curable** compositions and cured articles. Smetana, David A.; Koleske, Joseph V. (Suncolor Corporation, USA). PCT Int. Appl. WO 2002006371 A2 20020124, 76 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US41273 20010705. PRIORITY: US 2000-616201 20000713.

AB A **radiation-curable** compn. in a liq. or solid form comprises at least one solid, non-cryst. radiation-transmissible material, dispersed in at least one cationic-curable or free-radical curable compn. or mixt. thereof. The solid, non-cryst. radiation-transmissible materials comprise glasses and other suitable materials that transmit (i.e., are transparent to) at least about 40% of radiation having a wavelength from about 180 to about 600 nm. The cationic-curable compns. comprise at least one cycloaliph. epoxide, at least one polyol, and at least one cation-generating photoinitiator. The free-radical curable compns. comprise at least one ethylenically unsatd. compd. and at least one free-radical-generating photoinitiator unless electron beam curing is used, in which case the amt. of photoinitiator can be reduced or even eliminated. The solid forms of the **radiation-curable** compns. of the invention are useful as powder coatings for coating decorative and functional objects and that would be cured by a thermal heating flow process followed by radiation exposure. The cured compns. of the invention are useful as coatings and inks for metal, paper, plastics, glass, ceramics, and wood, as adhesives, as sealants, and as composite materials and other articles. The cured compns. of this invention also are useful in biomedical and dental applications, including prosthetic devices such as dentures; coatings, fillings, and caps for teeth; and the like.

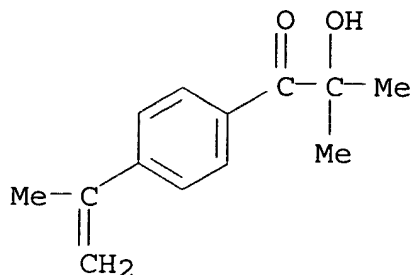
IT 115055-18-0, (2-Hydroxy-2-methyl-1,4-(1-methylvinyl)phenyl)propanone homopolymer (oligomeric; **radiation-curable** compns. and cured articles)

RN 115055-18-0 HCA  
 CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
 homopolymer (9CI) (CA INDEX NAME)

CM 1

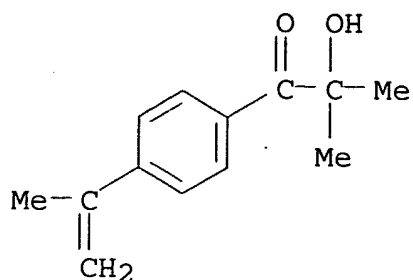
CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08G059-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 42, 63  
 ST **radiation curable** compn; solid noncryst  
 radiation transmissible material  
 IT Glass microspheres  
 (borosilicate; **radiation-curable** compns. and  
 cured articles)  
 IT Polymerization **catalysts**  
 (cationic, photochem.; **radiation-curable**  
 compns. and cured articles)  
 IT Borosilicate glasses  
 (microspheres; **radiation-curable** compns. and  
 cured articles)  
 IT Polyurethanes, uses  
 (polyester-, acrylate-terminated; **radiation-**  
**curable** compns. and cured articles)  
 IT Borosilicates  
 (potash; **radiation-curable** compns. and cured  
 articles)  
 IT **Coating materials**  
 (**radiation-curable** compns. and cured  
 articles)  
 IT Epoxy resins, uses  
 (**radiation-curable** compns. and cured  
 articles)  
 IT Borosilicates  
 (**radiation-curable** compns. and cured  
 articles)  
 IT Borosilicates  
 (soda; **radiation-curable** compns. and cured  
 articles)

- IT Glass, uses  
(uviol; **radiation-curable** compns. and cured articles)
- IT 15625-89-5, Trimethylolpropane triacrylate  
(SR 351HP; **radiation-curable** compns. and cured articles)
- IT 115055-18-0, (2-Hydroxy-2-methyl-1,4-(1-methylvinyl)phenyl)propanone homopolymer  
(oligomeric; **radiation-curable** compns. and cured articles)
- IT 119-61-9, Benzophenone, uses 5495-84-1, SPEEDCURE ITX 6175-45-7, 2,2-Diethoxyacetophenone 7473-98-5, 2-Hydroxy-2-methyl-1-phenyl-1-propanone 139301-16-9, SarCat CD-1012 149260-52-6, Esacure KIP 100F 390388-69-9, Cyacure UVI 6976  
(**radiation-curable** compns. and cured articles)
- IT 96-08-2, Limonene diepoxide 2386-87-0, 3,4-Epoxycyclohexylmethyl-3,4-epoxycyclohexane carboxylate 3130-19-6, Bis(3,4-epoxycyclohexylmethyl)adipate 53814-24-7, Bisphenol A-epichlorohydrin copolymer diacrylate 54735-63-6, TONE 0301  
(**radiation-curable** compns. and cured articles)
- IT 7631-86-9, Amorphous silica, uses 28961-43-5, SR 502 60676-86-0, Vitreous silica 178153-95-2, CN 981  
(**radiation-curable** compns. and cured articles)
- L44 ANSWER 5 OF 19 HCA COPYRIGHT 2003 ACS  
135:305343 **UV-curable** resin compositions for back coats and manufacture of shadow masks therewith. Tachizawa, Masahiro; Ando, Masayuki (Dainippon Printing Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001279131 A2 20011010, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-93648 20000330.
- AB Title compns. contain .gtoreq.1 (meth)acryloyl group-contg. compds. and radical developing side chain-contg. polymeric initiators with wt.-av. mol. wt. of 500-5,000. A compn. contg. Viscoat 2100, CBX 1 [(2,2,2-triacryloyloxymethyl)ethyl monophthalate], and Esacure KIP 150 was **UV-cured** to form a film showing 90.degree. etching pptn. of <0.5 g and 90.degree. 20% NaOH-contg. aq. soln. removability of <1 min.
- IT 115055-18-0, Esacure KIP 150  
(polymeric initiator-contg. acrylic back coats with easy alk. soln. removability for shadow masks)
- RN 115055-18-0 HCA  
CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)
- CM 1
- CRN 101649-40-5  
CMF C13 H16 O2



- IC ICM C09D004-02  
ICS C08F002-50; G03F007-029; H01J009-14
- CC 42-13 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74
- ST **UV curable polymeric** initiator acrylic  
back coating shadow mask
- IT **Coating materials**  
(**UV-curable; polymeric**  
initiator-contg. acrylic back coats with easy alk. soln.  
removability for shadow masks)
- IT 71878-19-8 **115055-18-0**, Esacure KIP 150  
(polymeric initiator-contg. acrylic back coats with easy alk.  
soln. removability for shadow masks)
- L44 ANSWER 6 OF 19 HCA COPYRIGHT 2003 ACS  
135:196944 VOC-free **radiation-curable** vinyl  
dioxolane end-capped resin compositions. Kovar, Robert F.; Orbey,  
Nese; Wentworth, Stanley (Foster Miller, Inc., USA). PCT Int. Appl.  
WO 2001060870 A1 20010823; 66 pp. DESIGNATED STATES: W: AE, AG,  
AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,  
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,  
IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,  
TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE,  
DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE,  
SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO  
2001-US4535 20010212. PRIORITY: US 2000-PV182619 20000215; US  
2000-PV220988 20000725.
- AB The present invention provides **radiation curable**  
resin compns. that contain no or essentially no volatile org.  
components (VOCs), and to methods of using these compns. The  
**radiation curable** resin compns. find particular  
use as coating compns. In particular, the **radiation**  
**curable** resin compns. of this invention comprise a vinyl  
dioxolane end-capped oligomer blended with a photoinitiator.
- IT **115055-18-0**, 2-Hydroxy-2-methyl-1-[4-(1-  
methylvinyl)phenyl]propanone] homopolymer  
(oligomeric; VOC-free **radiation-curable** vinyl  
dioxolane end-capped resin compns.)
- RN 115055-18-0 HCA

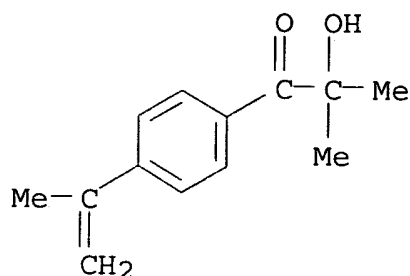


CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08F002-48  
ICS C08L067-00; C08L075-06; C08G063-00  
CC 42-10 (Coatings, Inks, and Related Products)  
ST vinyl dioxolane endcapped oligomer photoinitiator **radiation curable** coating  
IT **Coating materials**  
(**radiation-curable**; VOC-free  
**radiation-curable** vinyl dioxolane end-capped resin compns.)  
IT Polyesters, uses  
Polyurethanes, uses  
(vinyl dioxolane end-capped; VOC-free **radiation-curable** vinyl dioxolane end-capped resin compns.)  
IT 119-61-9, Benzophenone, uses 947-19-3, 1-Hydroxy cyclohexyl phenyl ketone 954-16-5 7473-98-5 13840-40-9, Phosphine oxide 24650-42-8 42343-24-8, Methylbenzophenone 125051-32-3 125954-07-6, Trimethylbenzoyldiphenylphosphine oxide 162881-26-7, Bis(2,4,6-trimethylbenzoyl)-phenylphosphineoxide (VOC-free **radiation-curable** vinyl dioxolane end-capped resin compns.)  
IT 223919-18-4P 356068-44-5P 356068-46-7P (VOC-free **radiation-curable** vinyl dioxolane end-capped resin compns.)  
IT 356068-48-9P (VOC-free **radiation-curable** vinyl dioxolane end-capped resin compns.)  
IT **115055-18-0**, 2-Hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone] homopolymer (oligomeric; VOC-free **radiation-curable** vinyl dioxolane end-capped resin compns.)

**polymer** matrix for tight-buffering optical fibers. Zopf, Richard F.; Thiffault, Brian D. (The Stewart Group, Inc., Can.). U.S. US 6208790 B1 20010327, 10 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-239404 19990128.

AB Tight buffered optical fiber coatings comprising an **UV-curable** coating applied around the circumference of an optical fiber and cured thereon at rates >100 m/min are described in which the optical fiber is non-colored and the **UV-curable polymer** coating is pigmented to color-code the optical fiber to aid in fiber identification. Optical fibers provided with the coatings are also described.

IT **115055-18-0**, KIP 150  
(colored **UV-curable** coatings for tight-buffering optical fibers and optical fibers provided with the coatings)

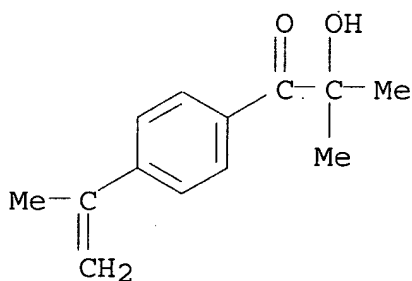
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM G02B006-02

NCL 385128000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 42

ST colored **UV curable** coating tight buffering optical fiber

IT Polysiloxanes, uses

(EB 350, **UV-curable**; colored **UV-curable** coatings for tight-buffering optical fibers and optical fibers provided with the coatings)

IT **Coating materials**

Optical fibers

(colored **UV-curable** coatings for tight-buffering optical fibers and optical fibers provided with the coatings)

IT 2082-79-3, Irganox 1076 41484-35-9, Irganox 1035 41556-26-7,

Tinuvin 292 75577-70-7, SR 454 115055-18-0, KIP 150  
(colored **UV-curable** coatings for  
tight-buffering optical fibers and optical fibers provided with  
the coatings)

IT 331449-81-1 331449-82-2  
(colored **UV-curable** coatings for  
tight-buffering optical fibers and optical fibers provided with  
the coatings)

L44 ANSWER 8 OF 19 HCA COPYRIGHT 2003 ACS

134:209324 A highly efficient photoinitiator for water-borne **UV**  
-**curable** systems. Visconti, M.; Cattaneo, M. (Lamberti  
S.p.A., Albizzate, 21041, Italy). Progress in Organic Coatings,  
40(1-4), 243-251 (English) 2000. CODEN: POGCAT. ISSN: 0300-9440.  
Publisher: Elsevier Science S.A..

AB A ready-to-use oil in water emulsion, Esacure KIP/EM was developed  
based on oligomeric, poly-functional .alpha.-hydroxyketone  
photoinitiator Esacure KIP 150. The emulsion is stable and it is  
easily incorporated into water-borne formulations, e.g., varnish  
based on acrylated polyester. The components of the emulsion do not  
adversely affect the performance of the photoinitiator itself. The  
photoinitiator incorporated into the emulsion has a low volatility,  
it does not release volatile photodecompn. products, and has a low  
tendency to migrate from the cured formulations.

IT 115055-18-0, Esacure KIP 150  
(oligomeric hydroxyketone photoinitiator performance and  
stability in water-borne **UV-curable** coating  
systems)

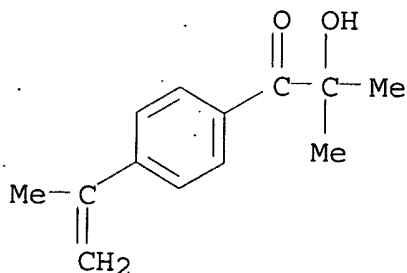
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



CC 42-3 (Coatings, Inks, and Related Products)  
ST hydroxyketone multifunctional photoinitiator waterborne **UV**  
**curable** coating; acrylated polyester **UV**  
**curable** varnish hydroxyketone photoinitiator

- IT **Coating materials**  
(UV-curable, water-thinned; oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT Polyesters, uses  
(acrylated; oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT Polyurethanes, uses  
(acrylates; oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT Emulsions  
(oil-in-water; oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT Hardness (mechanical)  
Particle size distribution  
(oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT Crosslinking catalysts  
(radical, photochem.; oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT 214840-87-6, Esacure KIP/EM  
(oil-in-water emulsion photoinitiator; oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)
- IT 115055-18-0, Esacure KIP 150  
(oligomeric hydroxyketone photoinitiator performance and stability in water-borne UV-curable coating systems)

L44 ANSWER 9 OF 19 HCA COPYRIGHT 2003 ACS

134:164598 Coating composition and its cured material with good properties. Yamaguchi, Kaichi; Yashiro, Takao; Nishiwaki, Isao; Ukaji, Takashi (JSR Co., Ltd., Japan; Nippon Tokushu Coating K. K.). Jpn. Kokai Tokkyo Koho JP 2001049077 A2 20010220, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-228296 19990812.

AB The compn. comprises (A) a particle prepd. by the bonding of a polymerizable unsatd. group-contg. org. compd. and an oxide compd. of Si, Al, Zr, Ti, Zn, Ge, In, Ti, Sb, and/or Ce; (B) a radiation polymn. initiator; and (C) a polymerizable unsatd. compd. Thus, a compn. was made from a crosslinked particle in MEK dispersion which contained a reaction product of mercaptopropyltrimethoxysilane, IPDI and pentaerythritol triacrylate (I) and MEK-ST; dipentaerythritol hexaacrylate; I; and 2-hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanol oligomer radiation initiator.

IT 115055-18-0, 2-Hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone homopolymer

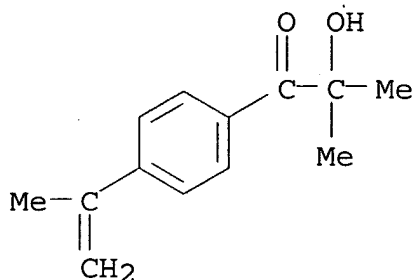
(KIP 150, radiation initiator; coating compn. and its cured material with good properties)

RN 115055-18-0 HCA  
 CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08L057-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 ST IPDI acrylate crosslinked silane dispersion coating; acrylic polymer **photocurable** coating; radiation initiator methylvinyl phenyl propanol oligomer  
 IT **Coating materials**  
 (photocurable; coating compn. and its cured material with good properties)  
 IT **Polymerization catalysts**  
 (radiation initiators; coating compn. and its cured material with good properties)  
 IT **Coating materials**  
 (radiation-curable; coating compn. and its cured material with good properties)  
 IT 115055-18-0, 2-Hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone homopolymer  
 (KIP 150, radiation initiator; coating compn. and its cured material with good properties)  
 IT 147076-20-8; Dipentaerythritol hexaacrylate-pentaerythritol triacrylate copolymer  
 (photocurable; coating compn. and its cured material with good properties)

L44 ANSWER 10 OF 19 HCA COPYRIGHT 2003 ACS

133:209338 **Photopolymerization** initiators, **photocurable** resin compositions, moldings coated with the compositions, and method for yellowing prevention. Fujita, Makoto (Sumitomo Chemical Co., Ltd., Japan).. Jpn. Kokai Tokkyo Koho JP 2000248012 A2 20000912, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-50314 19990226.

AB The initiators comprise hydroxy(lower alkyl)phenones and 1,1-di(lower alkoxy)-1,2-diphenylethanes. The compns. are useful for coatings for digital versatile disks, compact disks, etc. A compn. comprising bisphenol A diglycidyl ether diacrylate 10, polyethylene glycol diacrylate 10, neopentyl glycol hydroxypivalic acid diacrylate 70, ethylene oxide-modified phosphoric acid dimethacrylate 0.2, Irgacure 184 10, and Irgacure 651 1.5 parts were applied on a polycarbonate optical disk substrate and **cured** by **UV** irradiation to give a coating showing yellowing index <3.0 and no stickiness.

IT **115055-18-0**  
(oligomeric, **photopolymn.** initiators;  
**photopolymn.** initiators for **photocurable**  
coatings with reduced yellowing for optical disks)

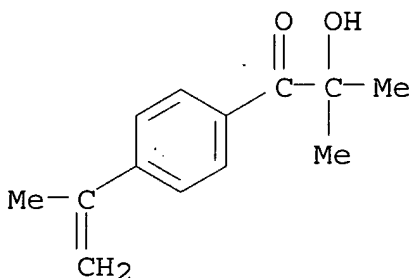
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08F002-50

ICS C08F020-10; C08F290-00; C08J007-04; C09D004-00

CC 42-3 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35, 38, 67, 74

ST **photopolymn** initiator polyacrylate coating yellowing prevention; hydroxycyclohexyl phenyl ketone polyacrylate coated molding; methoxyphenylacetophenone polyacrylate coating compact disk polycarbonate; digital video disk polycarbonate polyacrylate coating; optical disk polyacrylate coating yellowing prevention

IT Polycarbonates, uses  
(optical disk substrates; **photopolymn.** initiators for  
**photocurable** coatings with reduced yellowing for optical  
disks)

IT **Coating materials**  
(**photocurable**; **photopolymn.** initiators for  
**photocurable** coatings with reduced yellowing for optical  
disks)

IT Optical disks

## Yellowing prevention

- (**photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)
- IT Molded plastics, uses  
(**photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)
- IT Polymerization catalysts  
(**photopolymn.**, hydroxyalkylphenones and dialkoxydiphenylethanes; **photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)
- IT 115055-18-0  
(oligomeric, **photopolymn.** initiators; **photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)
- IT 947-19-3, Irgacure 184  
(**photopolymn.** initiator; **photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)
- IT 290832-67-6P  
(**photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)
- IT 7473-98-5 24650-42-8, Irgacure 651 69673-80-9,  
1-(4-Dodecylphenyl)-2-hydroxy-2-methylpropan-1-one 69673-85-4,  
1-(4-Isopropylphenyl)-2-hydroxy-2-methylpropan-1-one 151169-33-4  
(**photopolymn.** initiators; **photopolymn.** initiators for **photocurable** coatings with reduced yellowing for optical disks)

L44 ANSWER 11 OF 19 HCA COPYRIGHT 2003 ACS

133:31852 **Radiation-curable** hard coating composition and abrasion-, solvent-, and curling-resistant film coated with the composition. Kano, Hirokazu (Nippon Kayaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000167999 A2 20000620, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-345727 19981204.

AB The film has a **radiation-cured** coating layer formed from a compn. contg. (A) a **radiation-curable** polyfunctional (meth)acrylate, (B) a compd. having copolymerizable unsatd. double bond at the terminal and/or a compd. not having the bond, (C) a **photopolymn.** initiator. A compn: contg. Kayarad DPHA (dipentaerythritol hexaacrylate) 40.3, Epikote 828 acrylate 16.1, Kayarad PET 30 (pentaerythritol triacrylate) 16.1, 50% PhMe soln. of Macromonomer AN 6S 8.1, Esacure KIP 150 [2-hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone oligomer] 4.9 parts was applied on a polyester film and irradiated with a high-pressure Hg lamp to give a coated film with pencil hardness 3H. The film generated almost no gas when heated.

IT 115055-18-0, Esacure KIP 150  
(abrasion-, solvent-, and curling-resistant films coated with **radiation-curable** compns.)

RN 115055-18-0 HCA

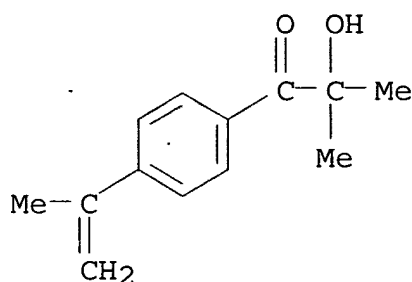
CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,

homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM B32B027-30

ICS C09D004-00

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

ST **UV curable** acrylic hard coating; abrasion  
 solvent resistance acrylic hard coating; epoxy acrylate hard coating  
 curling resistance; dipentaerythritol pentaerythritol acrylate  
 copolymer hard coating; **photopolymer** catalyst hydroxyketone  
 oligomer hard coating

IT **Coating materials**

(**UV-curable**; abrasion-, solvent-, and  
 curling-resistant films coated with **radiation-**  
**curable** compns.)

IT Plastic films

(abrasion-, solvent-, and curling-resistant films coated with  
**radiation-curable** compns.)

IT Polycarbonates, uses

Polyesters, uses

(abrasion-, solvent-, and curling-resistant films coated with  
**radiation-curable** compns.)

IT **Coating materials**

(abrasion-resistant; abrasion-, solvent-, and curling-resistant  
 films coated with **radiation-curable** compns.)

IT Epoxy resins, uses

(acrylic; abrasion-, solvent-, and curling-resistant films coated  
 with **radiation-curable** compns.)

IT Polymerization catalysts

(**photopolymer**., hydroxyketone polymers; abrasion-,  
 solvent-, and curling-resistant films coated with  
**radiation-curable** compns.)

IT Polysulfones, uses

Polysulfones, uses

(polyether-; abrasion-, solvent-, and curling-resistant films  
 coated with **radiation-curable** compns.)



- IT Polyethers, uses  
Polyethers, uses  
(polysulfone-; abrasion-, solvent-, and curling-resistant films coated with **radiation-curable** compns.)
- IT **Coating materials**  
(solvent-resistant; abrasion-, solvent-, and curling-resistant films coated with **radiation-curable** compns.)
- IT 115055-18-0, Esacure KIP 150  
(abrasion-, solvent-, and curling-resistant films coated with **radiation-curable** compns.)
- IT 9002-88-4 9003-07-0, Polypropylene 274260-00-3, Epikote 828 acrylate-Kayarad DPHA-Kayarad PET-30-Macromonomer AN 6S copolymer  
(abrasion-, solvent-, and curling-resistant films coated with **radiation-curable** compns.)

L44 ANSWER 12 OF 19 HCA COPYRIGHT 2003 ACS

132:201105 **Photohardenable** resin composition for optical recording disk protective film. Takahashi, Toshihiko; Takase, Hideaki; Ukaji, Takashi (JSR Co., Ltd., Japan; Nippon Tokushu Coating K. K.). Jpn. Kokai Tokkyo Koho JP 2000063450 A2 20000229, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-231493 19980818.

GI

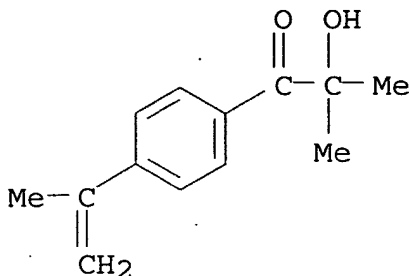
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

- AB The **photohardenable** resin compn. comprises (A) a (meth)acrylate I (n = 1-6; R1 = H, Me; R2 = single bond, O, S, SO2, divalent org. group; R3-10 = H, halo, C1-6 alkyl, Ph), (B) a (meth)acrylate II (a, b = 1-8; R11 = H, Me; R12 = R2; R15-22 = R3-10; R13,14 = C1-6 alkylene), (C) an org. compd. contg. .gtoreq.1 N and a polymerizable vinyl group, and (D) a **photopolymn.** initiator. The compn. is made up of (a) 10-60, (B) 5-80, (C) 5-50, and (D) 0.1-15 wt. parts on the basis of 100 wt. parts of (A)-(D).
- IT 115055-18-0, Esacurekip 150  
(**photopolymn.** initiator; **photohardenable** resin compn. for optical recording disk protective film)
- RN 115055-18-0 HCA
- CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2

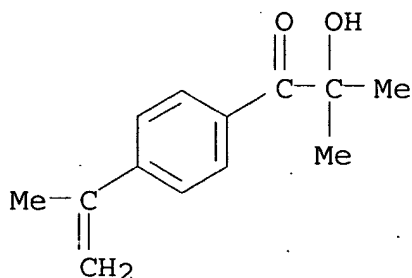


- IC ICM C08F290-06  
ICS C08F002-50; C08F220-26; G11B007-24; C09D133-14
- CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 37
- ST **photohardenable** resin compn protective film optical recording disk
- IT **Coating materials**  
Optical disks  
(**photohardenable** resin compn. for optical recording disk protective film)
- IT 259660-54-3P 259660-55-4P 259660-56-5P 259660-57-6P  
(**photohardenable** resin compn. for optical recording disk protective film)
- IT 947-19-3, Irgacure 184 **115055-18-0**, Esacurekip 150  
119313-12-1, Irgacure 369  
(**photopolymer**. initiator; **photohardenable** resin compn. for optical recording disk protective film)
- L44 ANSWER 13 OF 19 HCA COPYRIGHT 2003 ACS
- 132:36968 Photoinitiator efficiency in waterborne **UV-curable** coatings. Pietschmann, Norbert (Dep. Raw Mater. Coatings Varnishes, Inst. Lacke Farben, Germany). European Coatings Journal (9), 60,62-63,66,68-69 (English) 1999. CODEN: ECJOEF. ISSN: 0930-3847. Publisher: Vincentz Verlag.
- AB Various photoinitiators were tested in simple clearcoat formulations based on 2 aq. **UV-curable** resin emulsions (both unsatd. polyester and polyester acrylate) and on 2 polyurethane acrylate dispersions. Pre-drying temp., initiator conc., and incorporation methods were varied and values of pendulum hardness on glass were used to evaluate the curing result. Cryst. 2-hydroxy-2-methyl-1-[4-(2-hydroxyethoxy)phenyl]propan-1-one gave particularly good results at low conc. (below the soly. limit of 2%).
- IT **115055-18-0**  
(oligomeric; photoinitiator efficiency in waterborne **UV-curable** coatings)
- RN 115055-18-0 HCA
- CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

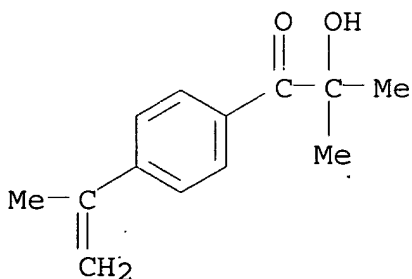
CRN 101649-40-5

CMF C13 H16 O2



- CC 42-3 (Coatings, Inks, and Related Products)
- ST coating waterborne **UV curable** photoinitiator efficiency; polymer waterborne emulsion dispersion photoinitiator curing; polyester acrylate coating **photocrosslinking** catalyst; polyurethane acrylate coating **photocrosslinking** catalyst
- IT **Coating materials**  
(**UV-curable**, waterborne; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT Polyesters, properties  
(acrylate-terminated; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT Polyurethanes, properties  
(acrylates; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT Crosslinking catalysts  
(photochem.; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT Polyesters, properties  
(unsatd.; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT **Coating materials**  
(water-thinned, **UV-curable**; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT 115055-18-0  
(oligomeric; photoinitiator efficiency in waterborne **UV-curable** coatings)
- IT 119-61-9, Benzophenone, uses 134-84-9, 4-Methylbenzophenone 947-19-3, 1-Hydroxycyclohexyl phenyl ketone 954-16-5, 2,4,6-Trimethylbenzophenone 7473-98-5, 2-Hydroxy-2-methyl-1-phenylpropan-1-one 106797-53-9  
(photoinitiator efficiency in waterborne **UV-curable** coatings)

- 131:116573 Real-time FTIR-ATR spectroscopy to study the kinetics of ultrafast **photopolymerization** reactions induced by monochromatic UV light. Scherzer, Tom; Decker, Ulrich (Department of Electron Beam Technology, Institute of Surface Modification, Leipzig, D-04318, Germany). *Vibrational Spectroscopy*, 19(2), 385-398 (English) 1999. CODEN: VISPEK. ISSN: 0924-2031. Publisher: Elsevier Science B.V..
- AB Real-time FTIR-ATR spectroscopy was used to study the kinetics of **photopolymn.** reactions induced by monochromatic UV light. Various photoinitiator systems were tested for their efficiency to start the curing reaction of acrylates on irradiation at 313 or 222 nm. The effect of phys. and chem. factors such as photoinitiator concn., light intensity, temp., monomer functionality and inertization on kinetic parameters like polymn. rate, induction period and final conversion was studied. The contribution of the postcuring to the final conversion was detd. by following the decay of the double bonds during and after irradiation with single or multiple short UV flashes with a duration of 50-200 ms. **UV curing** of a powder coating, a flexog. ink, and silicone acrylates was discussed.
- IT **115055-18-0**, Esacure KIP 150  
(catalyst in FTIR-ATR study of kinetics of ultrafast UV **photopolymn.** of acrylates)
- RN 115055-18-0 HCA
- CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)
- CM 1
- CRN 101649-40-5
- CMF C13 H16 O2



- CC 35-3 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 37, 42
- ST acrylate **photopolymn** kinetics ultrafast; UV laser **photopolymn** kinetics acrylate
- IT Polysiloxanes, processes  
(acrylate siloxanes; **UV curing** of)
- IT IR reflectance spectroscopy  
IR reflectance spectroscopy  
(attenuated total, Fourier-transform; in study of kinetics of

ultrafast UV **photopolymn.** of acrylates)  
IT Inks  
(flexog.; UV curing of)  
IT Polymerization kinetics  
(**photopolymn.**; FTIR-ATR study of kinetics of ultrafast  
UV **photopolymn.** of acrylates)  
IT Polymerization catalysts  
(**photopolymn.**; in FTIR-ATR study of kinetics of  
ultrafast UV **photopolymn.** of acrylates)  
IT **Coating materials**  
(powder; UV curing of)  
IT 141-32-2 4986-89-4, Pentaerythritol tetraacrylate 15625-89-5,  
Trimethylolpropane triacrylate 42978-66-5, Tripropylene glycol  
diacrylate  
(FTIR-ATR study of kinetics of ultrafast UV **photopolymn**  
. of)  
IT 7473-98-5 24650-42-8, Irgacure 651 71868-10-5, Irgacure 907  
**115055-18-0**, Esacure KIP 150 119313-12-1, Irgacure 369  
149260-52-6, Esacure KIP 100F 162881-26-7, Irgacure 819  
189146-15-4, Lucirin TPO  
(catalyst in FTIR-ATR study of kinetics of ultrafast UV  
**photopolymn.** of acrylates)

L44 ANSWER 15 OF 19 HCA COPYRIGHT 2003 ACS

129:162219 Esacure KIP 150, a non migrating, non benzaldehyde releasing  
photoinitiator. Visconti, M.; Cattaneo, M.; Li Bassi, G. (Lamberti  
S.p.A., Albizzate, 21041, Italy). RadTech'98 North America UV/EB  
Conference Proceedings, Chicago, Apr. 19-22, 1998, 28-30. RadTech  
International North America: Northbrook, Ill. (English) 1998.  
CODEN: 66IXAN.

AB Esacure KIP 150, an oligomeric polyfunctional .alpha.-hydroxyketone  
photoinitiator, was not released by a cured over print varnish based  
on an epoxy urethane acrylate when subjected to migration tests  
according to EEC guide-lines. Moreover, in expts. aimed to evaluate  
the release of volatile compds. during the curing process it did not  
release any volatile arom. aldehydic derivs., that are responsible  
for the unpleasant smell generated in the curing process.

IT **115055-18-0**, Esacure KIP 150  
(photoinitiator; migration and release of volatile org. compd.  
photodecompn. products in **photocuring** of epoxy urethane  
acrylate over print varnish by non-benzaldehyde releasing)

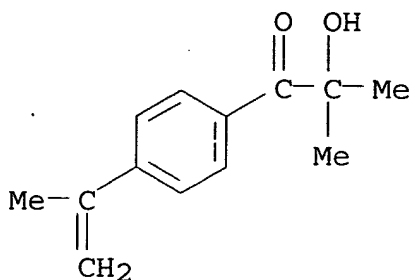
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



- CC 37-6 (Plastics Manufacture and Processing)
- IT Polyurethanes, uses  
Polyurethanes, uses  
(epoxy, acrylates; migration and release of volatile org. compd. photodecompn. products in **photocuring** of epoxy urethane acrylate over print varnish by non-benzaldehyde releasing)
- IT **Coating materials**  
(migration and release of volatile org. compd. photodecompn. products in **photocuring** of epoxy urethane acrylate over print varnish by non-benzaldehyde releasing Epicure KIP 150 photoinitiator)
- IT Crosslinking  
(photochem.; migration and release of volatile org. compd. photodecompn. products in **photocuring** of epoxy urethane acrylate over print varnish by non-benzaldehyde releasing Epicure KIP 150 photoinitiator)
- IT Epoxy resins, uses  
Epoxy resins, uses  
(polyurethane-, acrylates; migration and release of volatile org. compd. photodecompn. products in **photocuring** of epoxy urethane acrylate over print varnish by non-benzaldehyde releasing)
- IT **115055-18-0**, Esacure KIP 150  
(photoinitiator; migration and release of volatile org. compd. photodecompn. products in **photocuring** of epoxy urethane acrylate over print varnish by non-benzaldehyde releasing)
- IT 947-19-3, 1-Hydroxycyclohexylphenylketone 7473-98-5  
(photoinitiator; migration and release of volatile org. compd. photodecompn. products in **photocuring** of epoxy urethane acrylate over print varnish in presence of)

L44 ANSWER 16 OF 19 HCA COPYRIGHT 2003 ACS

128:36029 Coating composition comprising acrylate-containing compound which is sprayable, **curable by UV light**, and substantially volatile organic solvent-free and method of using same. Sokol, Andrew A. (UV Coatings Limited, USA; Sokol, Andrew A.). PCT Int. Appl. WO 9745458 A1 19971204, 15 pp.  
DESIGNATED STATES: W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK,

TJ, TT, UA, US, UZ, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US15464 19960926. PRIORITY: US 1995-553679 19950926.

AB A sprayable coating compn. is formulated using one or more acrylates and one or more photoinitiators which act to polymerize the compn. when exposed to UV light. Because of the use of low mol. wt. monomers or oligomers, the compn. is essentially free of volatile org. solvents and therefore evaporative **emissions** in **curing** are substantially eliminated. The compn. further includes a pigment or dye and optionally a nonreactive diluent to enable a wider range of viscosities.

IT **115055-18-0**, 2-Hydroxy-2-methyl-1-[4-(methylvinyl)phenyl]propanone homopolymer (oligomeric, photoinitiator; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)

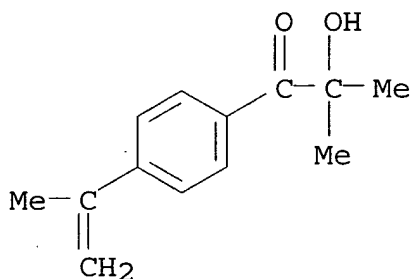
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08F002-46

ICS C08F002-50; C08F004-00; C08F004-40

CC 42-7 (Coatings, Inks, and Related Products)

ST finishing compn acrylate contg; **UV light cure** coating compn photoinitiator; volatile org solvent free coating compn; safety volatile free coating compn

IT **Coating materials**

(**UV-curable**, sprayable; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)

IT Epoxy resins, uses

Polyesters, uses

Polyurethanes, uses

(acrylates; sprayable substantially volatile org. solvent-free

- UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT Polymerization catalysts  
Polymerization catalysts  
(cationic, photochem.; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT Polymerization catalysts  
Polymerization catalysts  
(photochem., radical; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT **Coating materials**  
(solventless, **uv-curable**, sprayable; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT Volatile organic compounds  
(sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT **115055-18-0**, 2-Hydroxy-2-methyl-1-[4-(methylvinyl)phenyl]propanone homopolymer  
(oligomeric, photoinitiator; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT **119-61-9D**, Benzophenone, derivs. **492-22-8D**, Thioxanthone, derivs. **947-19-3**, 1-Hydroxycyclohexyl phenyl ketone **7473-98-5**, 1-Phenyl-2-hydroxy-2-methyl-1-propanone  
(photoinitiator; sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)
- IT **79-10-7D**, Acrylic acid, esters, polymers  
(sprayable substantially volatile org. solvent-free **UV-curable** coating compns. comprising acrylate-contg. compd. and photoinitiator)

L44 ANSWER 17 OF 19 HCA COPYRIGHT 2003 ACS

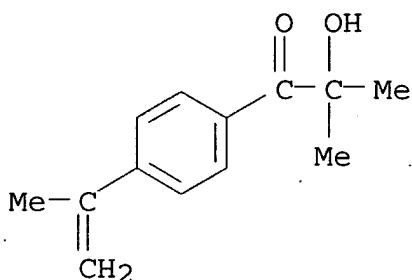
115:51899 Selected applications of oligomeric hydroxy acetophenone photoinitiator. Di Battista, Piero; Li Bassi, Giuseppe; Cattaneo, Massimo (Fratelli Lamberti S.p.A., Albizzate Varese, 21041, Italy). RadTech '90 North Am., Conf. Proc., Volume 1, 12-17. RadTech Int. North Am.: Northbrook, Ill. (English) 1990. CODEN: 57CAAM.

AB Oligomeric 4-(.alpha.-hydroxyisobutyryl)-.alpha.-methylstyrene, already proposed to coating formulators because of its efficiency, good compatibility, low volatility, low odor, and nonyellowing characteristics, was also an effective photoinitiator in systems contg. groups sensitive to H extn., i.e., acrylated polyurethanes. A synergistic effect was obtained with the addn. of an amine, e.g., methyldiethanolamine.

IT **115055-18-0**  
(oligomeric, photoinitiators, for **UV-curable**

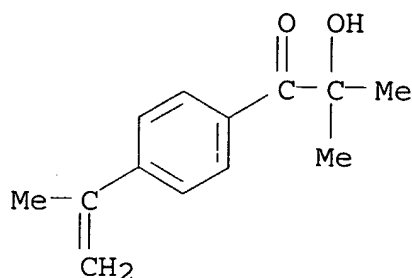


coating materials)  
 RN 115055-18-0 HCA  
 CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
 homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 101649-40-5  
 CMF C13 H16 O2



CC 42-5 (Coatings, Inks, and Related Products)  
 ST photoinitiator **UV curable** coating;  
 hydroxyacetophenone oligomer photoinitiator; acrylate polyurethane  
 photoinitiator  
 IT **Coating materials**  
 (UV-curable, photoinitiators for,  
 (hydroxyisobutyryl)methylstyrene oligomers as)  
 IT Crosslinking catalysts  
 (photochem., (hydroxyisobutyryl)methylstyrene oligomers, for  
**UV-curable** coatings)  
 IT 105-59-9, Methyldiethanolamine  
 (UV curing of coating materials with  
 synergistic mixts. of (hydroxyisobutyryl)methylstyrene oligomers  
 and)  
 IT 115055-18-0  
 (oligomeric, photoinitiators, for **UV-curable**  
 coating materials)  
 L44 ANSWER 18 OF 19 HCA COPYRIGHT 2003 ACS  
 110:156134 Advance in low-odor coatings: a new class of polymeric  
 nonyellowing photoinitiators. Li Bassi, Giuseppe; Cadona, Luciano;  
 Broggi, Fabrizio (Fratelli Lamberti S.p.A., Varese, Italy).  
 Polymers Paint Colour Journal (Suppl.), 114, 117-8, 122 (English)  
 1988. CODEN: PPCJA3. ISSN: 0370-1158.  
 AB Oligomeric and polymeric .alpha.-hydroxy-[4-(1-  
 methylvinyl)]isobutyrophenones were highly reactive photoinitiators  
 particularly suitable for **UV-curable**  
 nonyellowing clear coatings. The low degree of volatility of the  
 compds. or of their photolysis fragments allowed low odor coatings  
 and very reactive water-based **photocurable** emulsions to be  
 obtained.

IT 115055-18-0  
 (catalysts, for UV-curable acrylic  
 coatings, with low odor and without discoloration)  
 RN 115055-18-0 HCA  
 CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
 homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 101649-40-5  
 CMF C13 H16 O2



CC 42-3 (Coatings, Inks, and Related Products)  
 ST hydroxymethylvinylisobutyrophenone polymer catalyst crosslinking  
 photochem; UV curable coating  
 hydroxymethylvinylisobutyrophenone catalyst  
 IT Coating materials  
 (UV-curable, acrylic resins, low-odor  
 nonyellowing crosslinking catalysts for, isobutyrophenone deriv.  
 oligomers and polymers as)  
 IT Crosslinking catalysts  
 (photochem., isobutyrophenone deriv. oligomers and polymers,  
 low-odor and nonyellowing, for UV-curable  
 acrylic coatings)  
 IT 611-70-1D, Isobutyrophenone, derivs., oligomers and polymers  
 115055-18-0  
 (catalysts, for UV-curable acrylic  
 coatings, with low odor and without discoloration)  
 IT 52408-42-1, Laromer LR 8765 109190-58-1, Laromer EA 81  
 120026-32-6, Photomer 5029  
 (coatings, low-odor nonyellowing photocrosslinking  
 catalysts for, isobutyrophenone deriv. oligomers and polymers as)  
 L44 ANSWER 19 OF 19 HCA COPYRIGHT 2003 ACS  
 109:75243 Photoinitiators for waterborne UV-curable  
 coatings. Li Bassi, Giuseppe; Broggi, Fabrizio (Fratelli Lamberti  
 S.p.A., Albizzate, 21041, Italy). Polymers Paint Colour Journal,  
 178(4210), 197-8, 200-1, 214 (English) 1988. CODEN: PPCJA3. ISSN:  
 0370-1158.  
 AB The advantages of an oligomeric hydroxyalkyl Ph ketone and  
 PhCOCH2SSO3Na for UV curing of water-thinnable,

water-dispersion, and water-sol. coating systems contg. acrylic polymers were demonstrated.

IT 115055-18-0

(oligomeric, **catalysts**, for **UV curing** of waterborne coating systems)

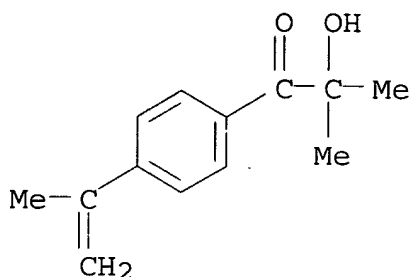
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



CC 42-3 (Coatings, Inks, and Related Products)

ST **UV crosslinking** aq coating; waterborne acrylic coating **UV curing**; photoinitiator **UV curing** coating

IT **Coating materials**

(**UV-curable**, water-thinned, acrylic polymers, photoinitiators for)

IT Crosslinking catalysts

(photochem., benzoyl group-contg. compds., for **UV-curable** waterborne coatings)

IT 6039-85-6

(**catalysts**, for **UV curing** of waterborne coating systems)

IT 115055-18-0

(oligomeric, **catalysts**, for **UV curing** of waterborne coating systems)

IT 115742-75-1 115742-84-2 115743-06-1 115743-07-2 115743-08-3  
(waterborne coating compns. contg., **UV curing** of, photoinitiators for)

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L45 ANSWER 1 OF 16 HCA COPYRIGHT 2003 ACS

137:354717 Radical initiator composition for use in a novel color care and stain treatment. Batchelor, Stephen Norman; Chapple, Andrew Paul; Fairclough, Lynette; Williams, Jacqueline (Unilever PLC, UK;

Unilever NV; Hindustan Lever Limited). PCT Int. Appl. WO 2002088292 A1 20021107, 38 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP3846 20020408. PRIORITY: GB 2001-10414 20010427.

AB A surfactant compn. comprises a radical initiator, which is preferably a photo initiator and preferably selected from H abstraction photoinitiators, bond cleavage radical photoinitiators or their mixts. The compn. further comprises .gtoreq.1 detergency builder, and is characterized in that the radical initiator is adsorbed onto at least a portion of the builder. A wash powder contg. zeolite builder and 0.2% Lucirin TPO-L was used to remove stains from cotton (soya-based tomato stains), showing CIElab .delta.E value 5.0; vs. 24 for a detergent without catalyst.

IT 115055-18-0, Esacure KIP-150  
(radical initiator compn. for color care and stain removal on fabrics)

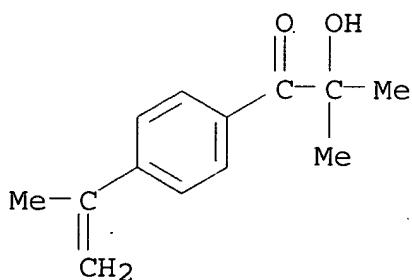
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C11D017-00  
ICS C11D011-00; C11D003-20; C11D003-28; C11D003-30; C11D003-24; C11D003-36  
CC 46-5 (Surface Active Agents and Detergents)  
ST cotton stain removal **photo bleach catalyst**  
IT 84434-11-7, Lucirin TPO-L 115055-18-0, Esacure KIP-150  
(radical initiator compn. for color care and stain removal on fabrics)

L45 ANSWER 2 OF 16 HCA COPYRIGHT 2003 ACS

137:338398 Solid mixtures of .alpha.-hydroxycarbonyl derivatives of .alpha.-methylstyrene oligomers and their uses. Visconti, Marco; Norcini, Gabriele; Li Bassi, Giuseppe (Lamberti S.p.A., Italy). PCT Int. Appl. WO 2002085832 A2 20021031, 8 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP3674 20020403. PRIORITY: IT 2001-VA11 20010424.

AB Solid mixts. of .alpha.-hydroxycarbonyl derivs. of .alpha.-methylstyrene oligomers contg. .gtoreq.90% of dimer isomers (dimer isomer ratio 2.5-7) are prepd. and used as photoinitiators in light-induced radical **photopolymer** of acrylic systems.

IT 115055-18-0P

(oligomers; solid mixts. of .alpha.-hydroxycarbonyl derivs.. of .alpha.-methylstyrene oligomers for photoinitiators)

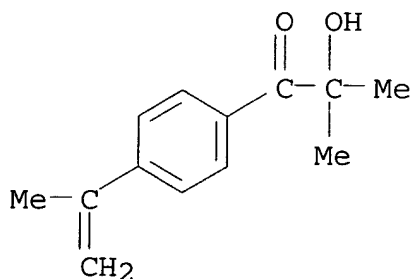
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C07C049-83

ICS C07C045-81; G03F007-031; C08F002-50

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 67

ST acrylic **photopolymer** catalyst hydroxycarbonyl methylstyrene dimer; oligomer hydroxycarbonyl methylstyrene dimer acrylic **photopolymer** catalyst

IT 115055-18-0P

(oligomers; solid mixts. of .alpha.-hydroxycarbonyl derivs. of .alpha.-methylstyrene oligomers for photoinitiators)

L45 ANSWER 3 OF 16 HCA COPYRIGHT 2003 ACS

136:371484 Bleaching composition comprising radical initiators for dyed fabrics. Batchelor, Stephen Norman; Fairclough, Lynnette; Williams, Jacqueline (Unilever P.L.C., UK; Unilever N.V.; Hindustan Lever Limited). PCT Int. Appl. WO 2002036723 A1 20020510, 26 pp.

DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR.

(English). CODEN: PIXXD2. APPLICATION: WO 2001-EP12579 20011029.

PRIORITY: GB 2000-26831 20001102.

AB The invention relates to bleaching compns. comprising radical initiators. More particularly the invention relates to laundry treatment compns. for the spot treatment of soiled articles and to a process using the said compns. The invention provides a fabric treatment compn. which comprises: (a) a radical initiator, and (b) a solvent which does not swell the amorphous regions of cotton. It is believed that the use of a solvent which is non-swelling prevents the passage of the initiator into the regions of the fibers where the dye resides while allowing the initiator to come into contact with the stain, which is essentially superficial. Preferred solvents are those with logP values greater than 1, most preferably greater than 2. The present invention further provides a method for the treatment of fabrics which comprises applying to the fabric a compn. according to the invention.

IT 115055-18-0, KIP 150

(photoinitiators; bleaching compn. comprising radical initiators for dyed fabrics)

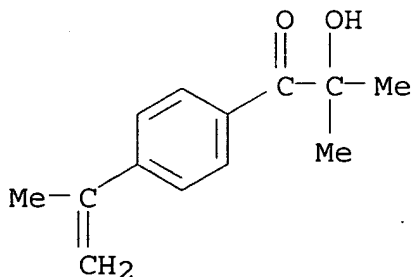
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

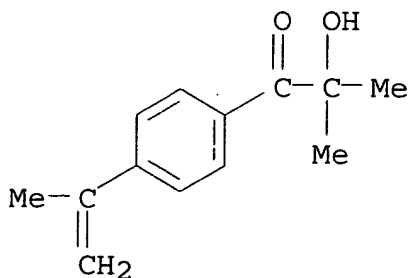
CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C11D003-00  
ICS C11D003-20; C11D003-18; C11D003-43  
CC 46-5 (Surface Active Agents and Detergents)  
IT Polymerization catalysts  
(**photopolymn.**, radical; bleaching compn. comprising  
radical initiators for dyed fabrics)  
IT 84434-11-7, Lucirin TPO-L **115055-18-0**, KIP 150  
149260-52-6, Esacure KIP 100F 211431-21-9, Esacure KTO 46  
(photoinitiators; bleaching compn. comprising radical initiators  
for dyed fabrics)  
  
L45 ANSWER 4 OF 16 HCA COPYRIGHT 2003 ACS  
136:326622 Adhesive compositions and manufacture of flexible printed  
circuit boards therewith. Tanaka, Shigehiro; Endo, Kazuo; Takase,  
Masanori; Goto, Sakiko (Dainippon Ink and Chemicals, Inc., Japan).  
Jpn. Kokai Tokkyo Koho JP 2002121499 A2 20020423, 5 pp. (Japanese).  
CODEN: JKXXAF. APPLICATION: JP 2000-317796 20001018.  
AB The compns. used to bond a conductive metal foil with a plastic film  
contain epoxy acrylates and photoinitiators. The circuit boards are  
manufd. by laminating a conductive metal foil with a plastic film  
using the compns., forming a resist pattern over the metal foil,  
subjecting to etching, and **curing by radiation**  
irradn. A compn. contained LX 660 23.3, KW 75 1.67, UE 8410 4.58,  
KIP-150 0.305 and EtOAc 29.6 part, showing good transparency,  
adhesion and no blocking.  
IT **115055-18-0**, KIP 150  
(photoinitiators; adhesive compn. and manuf. of flexible printed  
circuit boards therewith)  
RN 115055-18-0 HCA  
CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 101649-40-5  
CMF C13 H16 O2



IC ICM C09J004-06  
ICS H05K003-06  
CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

IT Adhesives

(**radiation-curable**; adhesive compn. and  
manuf. of flexible printed circuit boards therewith)

IT 115055-18-0; KIP 150

(photoinitiators; adhesive compn. and manuf. of flexible printed  
circuit boards therewith)

L45 ANSWER 5 OF 16 HCA COPYRIGHT 2003 ACS

136:310860 Method for producing crosslinked acrylate adhesives by use of  
.alpha.-hydroxy ketone as photoinitiators in hot-melt process.  
Cartellieri, Ulf; Husemann, Marc; Ring, Christian; Zoellner, Stephan  
(Tesa Ag, Germany). PCT Int. Appl. WO 2002028963 A2 20020411, 27  
pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, CY, DE, DK, ES,  
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (German). CODEN:  
PIXXD2. APPLICATION: WO 2001-EP11503 20011005. PRIORITY: DE  
2000-10049669 20001006.

AB Polyacrylate adhesive compds. were produced by adding  
.alpha.-hydroxy ketone as **UV-crosslinking**  
**catalysts** to a polyacrylate resin and curing the mixt. by  
hot-melt process and UV radiation. The polyfunctional **UV-**  
**crosslinking catalyst** which is present as an  
oligomer (Esacure KIP 150) is added to the acrylic polymer to be  
crosslinked prior to the hot-melt process and **UV**  
**crosslinking** is carried out after treatment in the hot-melt  
process. The photoinitiator .alpha.-hydroxy ketones are less  
volatile and less prone to cause premature gelling of hot-melt  
adhesives than previous-art systems.

IT 115055-18-0, Esacure KIP 150

(**UV-crosslinking catalyst**; manuf.  
of crosslinked polyacrylate hot-melt adhesives by **UV**  
**curing**)

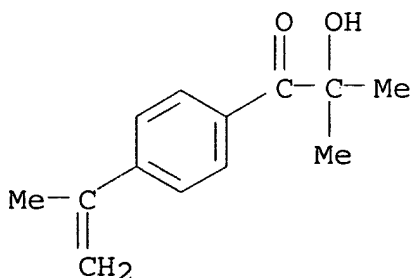
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2





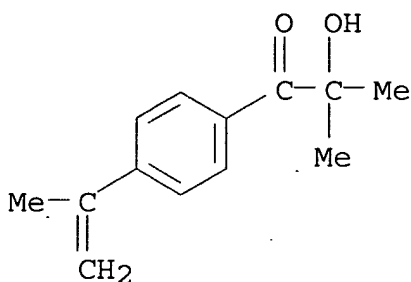
- IC ICM C08L033-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 ST polyacrylate adhesive manuf **UV crosslinking**;  
 hydroxy ketone **UV curing catalyst**  
 polyacrylate manuf; hot melt polyacrylate adhesive manuf **UV curing**
- IT Adhesives  
 (hot-melt, **UV-curable**; manuf. of crosslinked  
 polyacrylate hot-melt adhesives by **UV curing**)
- IT Crosslinking  
 Crosslinking catalysts  
 (photochem.; manuf. of crosslinked polyacrylate hot-melt  
 adhesives by **UV curing**)
- IT Adhesives  
 (**photocurable**, hot-melt; manuf. of crosslinked  
 polyacrylate hot-melt adhesives by **UV curing**)
- IT Ketones, uses  
 (.alpha.-hydroxy, **UV-crosslinking catalyst**; manuf. of crosslinked polyacrylate hot-melt  
 adhesives by **UV curing**)
- IT 947-19-3, Irgacure 184 5495-84-1, Speedcure ITX 24650-42-8,  
 Irgacure 651 **115055-18-0**, Esacure KIP 150 119313-12-1,  
 Irgacure 369 162881-26-7, Irgacure 819 410074-57-6, Speedcure  
 BMDS  
 (**UV-crosslinking catalyst**; manuf.  
 of crosslinked polyacrylate hot-melt adhesives by **UV curing**)
- IT 346705-87-1P 383185-71-5P 409126-20-1P  
 (manuf. of crosslinked polyacrylate hot-melt adhesives by  
**UV curing**)
- IT 9017-27-0, Piccotex 75 410074-58-7, Genomer 4212 410074-59-8, DT  
 110 410074-68-9, Genomer 5248 410074-70-3, Genomer 5275  
 410074-71-4, Genomer 5292  
 (manuf. of crosslinked polyacrylate hot-melt adhesives by  
**UV curing**)
- L45 ANSWER 6 OF 16 HCA COPYRIGHT 2003 ACS  
 136:126543 **UV-curable** photoresist compositions with  
 excellent coating properties, acid resistance, and alkali  
 developability. Kato, Mitsuyoshi; Usuki, Naomi; Fujita, Akira (The  
 Inctec Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002020411 A2  
 20020123, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
 2000-206072 20000707.
- AB The compns., useful for etching masks in photolithog., contain (A)  
 (meth)acrylates having .gtoreq.1 carboxyl end groups, (B)  
 polyfunctional (meth)acrylates (other than A) and/or monofunctional  
 (meth)acrylates, and (C) **photopolymn.** initiators  
 R1(CMeQCH2)nR2 [Q = p-C6H4C:OCMe2(OH); R1,2 = H, (un)substituted  
 alkyl; n = 2-50].
- IT **115055-18-0**, Esacure KIP 150  
 (**photopolymn.** initiator; **UV-curable**  
 photoresist compns. with good coating properties for etching

masks in photolithog.)

RN 115055-18-0 HCA  
CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5  
CMF C13 H16 O2



IC ICM C08F002-50  
ICS C08F002-44; C08F220-26; C08F290-04; C08L033-14; G03F007-027;  
G03F007-028

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

ST **UV curing** photoresist coating etching mask;  
alkali development acryloyloxypropyl hydrophthalate lauryl acrylate;  
**photopolymn** initiator hydroxymethyl  
methylvinylphenylpropanone oligomer photolithog

IT Etching masks  
(**UV-curable** photoresist compns. with good  
coating properties for etching masks in photolithog.)

IT Photoresists  
(**UV; UV-curable** photoresist compns.  
with good coating properties for etching masks in photolithog.)

IT **Polymerization catalysts**  
(**photopolymn.; UV-curable**  
photoresist compns. with good coating properties for etching  
masks in photolithog.)

IT 103-11-7, 2-Ethylhexyl acrylate 2156-97-0, Lauryl acrylate  
3076-04-8, Tridecyl acrylate 4986-89-4, Pentaerythritol  
tetraacrylate 12542-30-2, Dicyclopentadienyl acrylate  
64401-02-1, Aronix M 210 97387-29-6, .omega.-  
Carboxypolycaprolactone monoacrylate 133793-62-1 371970-07-9  
(**UV-curable** photoresist compns. with good  
coating properties for etching masks in photolithog.)

IT 7473-98-5, 2-Hydroxy-2-methyl-1-phenylpropan-1-one 24650-42-8,  
2,2-Dimethoxy-1,2-diphenylethanone 71868-10-5,  
2-Methyl-1-[4-(methylthio)phenyl]-2-morpholino-1-propanone  
115055-18-0, Esacure KIP 150  
(**photopolymn. initiator; UV-curable**

photoresist compns. with good coating properties for etching masks in photolithog.)

IT 69458-64-6, Megafac F 173

(surface modifier; **UV-curable** photoresist compns. with good coating properties for etching masks in photolithog.)

L45 ANSWER 7 OF 16 HCA COPYRIGHT 2003 ACS

135:93537 **UV-curable** sealing compositions and manufacture of plastic lenses by casting therewith. Sugitani, Masao; Hagiri, Yoshihiro; Iwanami, Saneo; Watanabe, Toshio (Kyoritsu Chemical Industry Co., Ltd., Japan; Seiko Epson Corp.). Jpn. Kokai Tokkyo Koho JP 2001179758 A2 20010703, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-370161 19991227.

AB The lenses are manufd. by feeding liq. thermosetting compns. contg. .gtoreq.1 mercapto compd. of HSCH<sub>2</sub>CH<sub>2</sub>SCH<sub>2</sub>CH(CH<sub>2</sub>SH)SCH<sub>2</sub>CH<sub>2</sub>SH (I) and/or C(CH<sub>2</sub>OCOCH<sub>2</sub>CH<sub>2</sub>SH)<sub>4</sub> and .gtoreq.1 polyisocyanate through a hole into a cavity of a pair of molds, sealing the hole with **UV-curable polymer** compns. contg. polyisoprene acrylate oligomers with Mw 10,000-50,000, and **curing the UV-curable polymer** compns. Thus, a compn. (A) contg. I, m-xylylene diisocyanate, and 2-(5-methyl-2-hydroxyphenyl)benzotriazole was fed into a pair of molds sealed with an adhesive tape through a hole on the tape, where a **UV-curable** compn. contg. a catalyst (Esacure KIP 150) and an oligomer prepd. from TL 20 (OH-contg. polyisoprene oligomer) and vinyl isocyanate was applied on the hole and **cured** by UV irradiation for sealing. The compn. (A) was heated and molded to give a lens showing no optical strain.

IT 115055-18-0, Esacure KIP 150

(**polymn. catalysts** for **UV-curable** compns.; manuf. of plastic lenses by casting of polythiourethanes using **UV-curable** sealing compns.)

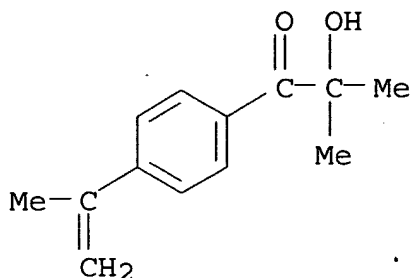
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



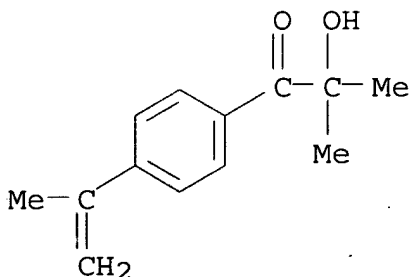
- IC ICM B29C039-24  
ICS C08F002-00; C08F002-50; C08F299-00; C08G018-38; G02B001-04;  
G02B003-00; B29K101-10; B29L011-00
- CC 38-2 (Plastics Fabrication and Uses)  
Section cross-reference(s): 73
- ST lens polythiourethane casting tape; polyisoprene acrylate oligomer  
**UV curable** sealant; mercaptomethyl octanedithiol  
xylylene isocyanate lens
- IT Lenses  
Sealing compositions  
UV stabilizers  
(manuf. of plastic lenses by casting of polythiourethanes using  
**UV-curable** sealing compns.)
- IT Polymerization catalysts  
(**photopolymn.**; manuf. of plastic lenses by casting of  
polythiourethanes using **UV-curable** sealing  
compns.)
- IT Casting of polymeric materials  
(tape; manuf. of plastic lenses by casting of polythiourethanes  
using **UV-curable** sealing compns.)
- IT Polyurethanes, uses  
(thio-; manuf. of plastic lenses by casting of polythiourethanes  
using **UV-curable** sealing compns.)
- IT 2440-22-4  
(UV absorber; manuf. of plastic lenses by casting of  
polythiourethanes using **UV-curable** sealing  
compns.)
- IT 131538-01-7P, 4-(Mercaptomethyl)-3,6-dithia-1,8-octanedithiol-m-  
xylylene diisocyanate copolymer  
(manuf. of plastic lenses by casting of polythiourethanes using  
**UV-curable** sealing compns.)
- IT 3555-94-ODP, Vinyl isocyanate, reaction products with hydroxy-contg.  
polyisoprene, polymers 9003-31-ODP, Polyisoprene, hydroxy-contg.,  
reaction products with vinyl isocyanate, polymers 348083-19-2DP,  
TL 20 (oligomer), reaction products with vinyl isocyanate, polymers  
(manuf. of plastic lenses by casting of polythiourethanes using  
**UV-curable** sealing compns.)
- IT 7575-23-7  
(manuf. of plastic lenses by casting of polythiourethanes using  
**UV-curable** sealing compns.)

- IT 115055-18-0, Esacure KIP 150  
(**polymn. catalysts** for **UV-curable** compns.; manuf. of plastic lenses by casting of polythiourethanes using **UV-curable** sealing compns.)
- L45 ANSWER 8 OF 16 HCA COPYRIGHT 2003 ACS  
135:47716 **Photocurable** sealing compositions generating reduced amount of volatile gas for electronic devices, and sealing layer-formed devices. Arai, Yoshihide; Nemoto, Takashi (Three Bond Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001163931 A2 20010619, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-352739 19991213.
- AB Title compns. comprise urethane (meth)acrylate.10-80, (meth)acrylate ester monomers 20-90, **photopolymn.** initiators 0.3-10, and fillers 1-30%, and have shear stress yield point 5-100 Pa. The compns. have appropriate viscosity for automatic application and show good shape retention when applied on substrates. Thus, urethane prepolymer [Mw 50,000, prepd. from [HOCH<sub>2</sub>CH<sub>2</sub>(OCHMeCH<sub>2</sub>)<sub>n</sub>C<sub>6</sub>H<sub>4</sub>]2CMe<sub>2</sub>, HDI, and 2-hydroxyethyl acrylate], tetrahydrofurfuryl acrylate, phenoxy acrylate, KIP 150 (**photopolymn.** initiator), and Aerosil R 972 (dimethyldichlorosilane-treated silica) were **photocured** and stored at 80.degree. for 24 h to show wt. change -0.3%.
- IT 115055-18-0, KIP 150  
(**photocurable** low out-gas urethane (meth)acrylate compns. for sealing electronic devices)
- RN 115055-18-0 HCA  
CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



- IC ICM C08F290-06  
ICS C08F002-50; C08F290-14; C09D004-00; C09J004-00; C09J007-02; C09K003-10
- CC 42-11 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 76

ST **photocurable** hydrofurfuryl acrylate polyurethane sealing  
 electronic; shape retention acrylate polyurethane sealing  
 electronic; silica filler acrylate polyurethane sealing electronic

IT Electric apparatus  
 Fillers  
     (**photocurable** low out-gas urethane (meth)acrylate  
     comps. for sealing electronic devices)

IT Sealing compositions  
     (**photocurable**; **photocurable** low out-gas  
     urethane (meth)acrylate comps. for sealing electronic devices)

IT Polymerization catalysts  
     (**photopolymer**; **photocurable** low out-gas  
     urethane (meth)acrylate comps. for sealing electronic devices)

IT Polyurethanes, uses  
     (polyester-, acrylic; **photocurable** low out-gas urethane  
     (meth)acrylate comps. for sealing electronic devices)

IT Polyurethanes, uses  
     (polyoxyalkylene-, acrylic; **photocurable** low out-gas  
     urethane (meth)acrylate comps. for sealing electronic devices)

IT 115055-18-0, KIP 150  
     (**photocurable** low out-gas urethane (meth)acrylate  
     comps. for sealing electronic devices)

IT 344920-33-8P 344920-34-9P 344920-35-0P 344920-36-1P  
 344928-11-6P  
     (**photocurable** low out-gas urethane (meth)acrylate  
     comps. for sealing electronic devices)

IT 7631-86-9, Aerosil R-200, uses 60842-32-2, Aerosil R 972  
 145539-08-8, TS 720  
     (**photocurable** low out-gas urethane (meth)acrylate  
     comps. for sealing electronic devices)

L45 ANSWER 9 OF 16 HCA COPYRIGHT 2003 ACS

135:6569 Use of a cast resin and a thermoset edge seal for producing a sandwich system consisting of a picture screen and a glass pane. Schwamb, Michael; Poehlmann, Thomas (Chemetall Gmbh, Germany). PCT Int. Appl. WO 2001038087 A1 20010531, 38 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (German). CODEN: PIXXD2. APPLICATION: WO 2000-EP11104 20001110. PRIORITY: DE 1999-19956548 19991124; DE 2000-10048991 20000927.

AB The invention relates to the use of a transparent cast resin that consists of reactive acrylate and methacrylate monomers, acrylate and methacrylate oligomers, coupling agents, and initiators. The invention further relates to the use of an edge seal for producing a sandwich system that consists of a picture screen, a cast-resin layer, an edge seal that laterally surrounds the cast-resin layer,

and a glass pane. The product can be used as the front part of a shatter-resistant TV screen. In an example, a mixt. of Vistanex LM-H and Bu 065 was used as an edge-sealing resin. For the casting resin, a copolymer of 2-ethylhexyl acrylate, 2-ethylhexyl methacrylate, acrylic acid, and Jagotex AP 273 was produced using benzyl di-Me ketal **photocatalyst** and heating.

IT 115055-18-0, Esacure KIP 150  
(**photopolymer**. catalyst; in prodn. of resins for TV screen-glass pane laminate)

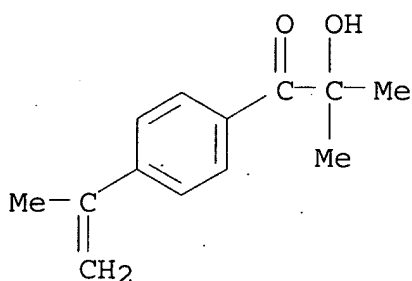
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer. (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM B32B017-10

ICS C09J004-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 39, 57

IT Polymerization catalysts

(**photopolymer**.; in prodn. of resins for TV screen-glass pane laminate)

IT 947-19-3, Irgacure 184 24650-42-8, Lucirin BDK 115055-18-0, Esacure KIP 150

(**photopolymer**. catalyst; in prodn. of resins for TV screen-glass pane laminate)

L45 ANSWER 10 OF 16 HCA COPYRIGHT 2003 ACS

134:296679 **Ultraviolet curable** resin compositions

having enhanced shadow cure properties. Gregory, Scott (Rheox, Inc., USA). Eur. Pat. Appl. EP 1092740 A1 20010418, 15 pp.

DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN:

EPXXDW. APPLICATION: EP 2000-308981 20001012. PRIORITY: US 1999-415079 19991012.

AB The sealing compn. including an additive of .gtoreq.1 org. peroxide thermal initiators to cationic photoinitiators, that are sensitized with .alpha.-hydroxyketones, which compn. provides a

self-propagating thermal curing reaction first activated by a short duration of surface UV radiation. The thermal reaction is non-directional, thus eliminating the line of sight limitation of current **radiation curing** processes. Complete curing can be achieved of the compn. in a very short time; often after only a few minutes or less. The activation period can be provided by only a few seconds of UV light using a wide variety of com. UV light sources. Thus, a compn. was made from a mixt. of ERL 4221 57.8, Tone 0310 42.2, and CD 1012 1.0 part.

IT 115055-18-0, Esacure KIP 150

(UV curable resin compns. having enhanced shadow cure properties)

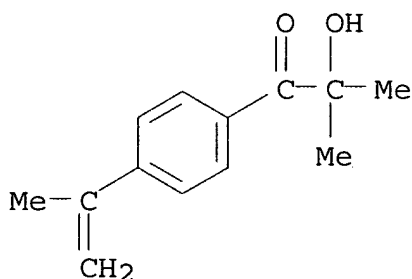
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08G059-24

ICS G03F007-038; C08L035-08; C08L063-00

CC 37-6 (Plastics Manufacture and Processing)

ST UV light curable epoxy sealing compn; peroxide hydroxyketone photoinitiator epoxy resin; free radical generator curing epoxy; hexafluoroantimonate **photocuring** epoxy

IT **Polymerization catalysts**

Potting compositions

Sealing compositions

(UV curable resin compns. having enhanced shadow cure properties)

IT 119-61-9, Benzophenone, uses 614-45-9, tert-Butyl perbenzoate 947-19-3, Irgacure 184 4511-39-1, tert-Amyl perbenzoate

6175-45-7, 2,2-Diethoxyacetophenone 7473-98-5,

2-Hydroxy-2-methyl-1-phenylpropan-1-one 10373-78-1, Camphorquinone

21245-02-3, 2-Ethylhexyl-p-dimethylaminobenzoate 24650-42-8,

2,2-Dimethoxy-2-phenyl acetophenone 71868-10-5, Irgacure I 907

75081-21-9, Isopropyl thioxanthone 115055-18-0, Esacure

KIP 150 119313-12-1 139301-16-9, CD 1012 162881-26-7,



Bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide 220183-80-2  
(**UV curable** resin compns. having enhanced shadow cure properties)

IT 124375-07-1  
(**UV curable** resin compns. having enhanced shadow cure properties)

IT 94-36-0, Benzoyl peroxide, uses  
(peroxides, Lucidol 98; **UV curable** resin compns. having enhanced shadow cure properties)

IT 3006-82-4, Lupersol PDO 3006-86-8, Lupersol 331-80B 15667-10-4,  
Lupersol 531-80B 34443-12-4, Lupersol TBEC 70833-40-8, Lupersol  
TAEC  
(peroxides; **UV curable** resin compns. having enhanced shadow cure properties)

L45 ANSWER 11 OF 16 HCA COPYRIGHT 2003 ACS

133:253995 **Ultraviolet-curable** coating compositions  
for cationic electrodeposition onto metallic materials and electrically conductive plastics. Fukuda, Masao; Shimizu, Yoshiji (Shimizu Co., Ltd., Japan). Eur. Pat. Appl. EP 1036829 A1 20000920, 11 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-200852 19990318.

AB A **UV-curable** coating compn. comprises 100 parts acrylic resin contg. 10-70% polyfunctional acrylate having .gtoreq.3 acryloyl groups and 30-90% resin of mol. wt. 2,000-30,000 having a cationic electrodeposition property, and 0.1-10 parts of .gtoreq.2 species of **photopolymn.** initiators which absorb UV radiation at 300-400 nm. Thus, mixing a soln. of copolymer of dimethylaminoethyl methacrylate, 2-hydroxyethyl methacrylate, 2-ethylhexyl acrylate, Bu methacrylate, Me methacrylate, and styrene with Urethane acrylate UA-101T, and a combination of **photopolymn.** initiators 2-hydroxy-2-methyl-1-phenylpropan-1-one and bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide gave a coating compn. Test pieces of Ni-plates ABS resin were coated with the above electrodeposition coating compn., dried at 80.degree. for 10 min, and exposed to UV light to give a film having cross hatch tape adhesion 100/100, Mitsubishi pencil hardness 3H, and good appearance.

IT 115055-18-0  
(oligomer; **UV-curable** electrodeposition coating on Ni-plated ABS resin)

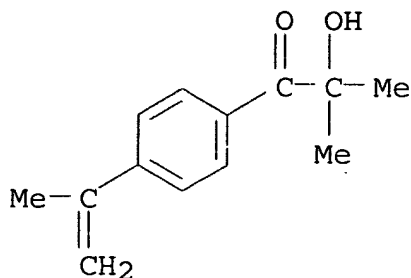
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



- IC ICM C09D005-44  
 CC 42-10 (Coatings, Inks, and Related Products)  
 ST **UV curable** acrylic resin electrodeposition  
 coating; plated plastic substrate electrodeposition coating; metal  
 substrate electrodeposition coating  
 IT Electrodeposits  
     (**UV-curable; UV-curable**  
     coating compns. for cationic electrodeposition onto metallic  
     materials and elec. conductive plastics)  
 IT Polyurethanes, uses  
     (acrylates; **UV-curable** electrodeposition  
     coating on Ni-plated ABS resin)  
 IT 947-19-3, 1-Hydroxycyclohexyl phenyl ketone 954-16-5,  
 2,4,6-Trimethylbenzophenone 7473-98-5, 2-Hydroxy-2-methyl-1-  
 phenylpropan-1-one 41295-28-7 162881-26-7, Bis(2,4,6-  
 trimethylbenzoyl)phenylphosphine oxide  
     (**UV-curable** electrodeposition coating on  
     Ni-plated ABS resin)  
 IT 294855-54-2P 294855-55-3P 295326-76-0P  
     (**UV-curable** electrodeposition coating on  
     Ni-plated ABS resin)  
 IT 9003-56-9, ABS resin  
     (nickel-plated; **UV-curable** electrodeposition  
     coating on Ni-plated ABS resin)  
 IT 115055-18-0  
     (oligomer; **UV-curable** electrodeposition  
     coating on Ni-plated ABS resin)  
 IT 7440-02-0, Nickel, miscellaneous  
     (plating; **UV-curable** electrodeposition  
     coating on Ni-plated ABS resin)

L45 ANSWER 12 OF 16 HCA COPYRIGHT 2003 ACS

132:173480 **Photocurable** resin composition with low chlorine  
 content for optical disk fabrication. Takahashi, Toshihiko;  
 Takehana, Yuichi; Takase, Hideaki; Ukachi, Takashi (DSM N.V., Neth.;  
 JSR Corporation; Japan Fine Coatings Co., Ltd.). PCT Int. Appl. WO  
 2000009620 A1 20000224, 46 pp. DESIGNATED STATES: W: CN, KR, US;  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-NL511  
 19990811. PRIORITY: JP 1998-230469 19980817.

AB A **photocurable** resin compn. comprises (A) a urethane (meth)acrylate prepd. by the reaction of a polyol compd., a polyisocyanate compd., and a hydroxyl-contg. (meth)acrylate compd., (B) a (meth)acrylate compd. having at least one (meth)acryloyl group in the mol., and (C) a photoinitiator, with a chlorine content of no more than 0.001 wt%. The invention also relates to a process for prepg. the **photocurable** resin compn. and an optical disk fabricated using the **photocurable** resin compn. as an adhesive.

IT 115055-18-0, Esacure KIP150  
(**photocurable** resin compns. as adhesives for optical disk fabrication contg. urethane (meth)acrylates, (meth)acrylates and)

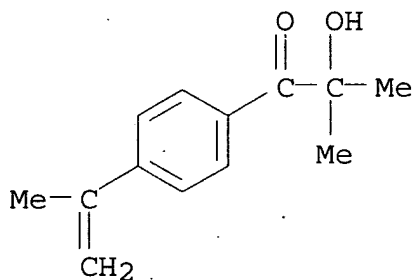
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC C09J004-06; G11B007-24; C08F290-14; C08F290-06; C08G018-67  
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
ST **photocurable** compn low chlorine content adhesive optical disk  
IT Polyurethanes, uses  
(acrylates; **photocurable** resin compns. as adhesives for optical disk fabrication contg. (meth)acrylates and)  
IT Optical disks  
(**photocurable** resin compns. with low chlorine contents as adhesives for fabrication of)  
IT Optical recording materials  
(**photocurable** resin compns. with low chlorine contents as adhesives for prepn. of)  
IT Adhesives  
(**photocurable** resin compns. with low chlorine contents for use in optical disk fabrication as)  
IT 83104-79-4, 2-Hydroxyethyl acrylate-isophorone diisocyanate-polytetramethylene glycol copolymer 258513-33-6,

1,3-Bis(isocyanatomethyl)cyclohexane-2-hydroxyethyl acrylate-Placel  
CD205 copolymer

(**photocurable** resin compns. as adhesives for optical  
disk fabrication contg. (meth)acrylates and)

IT 2156-97-0, Lauryl acrylate 2399-48-6, Tetrahydrofurfuryl acrylate  
5117-12-4, Acryloylmorpholine 13048-33-4, 1,6-Hexanediol  
diacrylate 48145-04-6, Phenoxyethyl acrylate 81063-55-0

(**photocurable** resin compns. as adhesives for optical  
disk fabrication contg. urethane (meth)acrylates and)

IT 947-19-3, 1-Hydroxycyclohexyl phenyl ketone 24650-42-8  
71868-10-5, 2-Methyl-1-[4-(methylthio)phenyl]-2-morpholinopropan-1-  
one 115055-18-0, Esacure KIP150

(**photocurable** resin compns. as adhesives for optical  
disk fabrication contg. urethane (meth)acrylates, (meth)acrylates  
and)

L45 ANSWER 13 OF 16 HCA COPYRIGHT 2003 ACS

128:155415 Water-absorbent fibers and manufacture thereof. Hayashi,  
Yasushi; Fuyuki, Tadataka; Higashi, Takashi; Nakahara, Yoshifumi;  
Tsurushima, Akiyasu (Sekisui Plastics Co., Ltd., Japan). Jpn. Kokai  
Tokkyo Koho JP 10018125 A2 19980120 Heisei, 15 pp. (Japanese).  
CODEN: JKXXAF. APPLICATION: JP 1996-188397 19960627.

AB The title fibers showing no lumping or falling during manuf. or use  
comprise at least water-absorbent fiber components and softener  
components (5-50% in fiber) and have water absorption ratio 30-120  
times own wt. An aq. soln. (monomer concn. 45%) acrylic acid  
partial sodium salt, polyethylene glycol diacrylate, poly(ethylene  
oxide) as stringiness-imparting agent, and Darocur was pushed  
through a nozzle (inner diam. 0.97 mm), and the stringy extrudate  
was irradiated with a high-pressure Hg lamp, collected on a conveyer  
belt, and dried at 110.degree. to obtain fibers of diam. around 150  
.mu.m, water content 8%, and saline water absorption 42 times own  
wt.

IT 115055-18-0

(Esacure KIP 150; water-absorbent fibers and manuf. thereof)

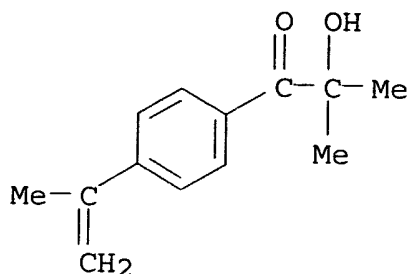
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2

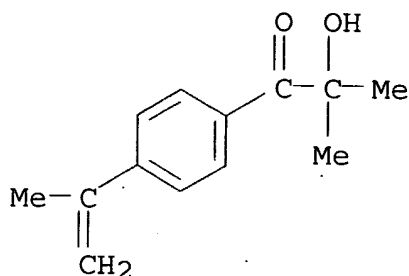


- IC ICM D01F006-52  
ICS A61F013-46; A61F005-44; A61F013-15; D01D005-40; D01F006-16;  
D01F011-04; D04H001-42
- CC 40-2 (Textiles and Fibers)
- IT Polymerization catalysts  
(**photopolymer**.; water-absorbent fibers and manuf. thereof)
- IT 115055-18-0  
(Esacure KIP 150; water-absorbent fibers and manuf. thereof)
- L45 ANSWER 14 OF 16 HCA COPYRIGHT 2003 ACS
- 128:141543 **Radiation-curable acrylic polymer**  
compositions for casting. Ukon, Masakatsu; Kato, Yoshiko;  
Takahashi, Toshihiko (Japan Synthetic Rubber Co., Ltd., Japan;  
Nippon Tokushu Coating K. K.). Jpn. Kokai Tokkyo Koho JP 10017635  
A2 19980120 Heisei, 10 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 1996-177800 19960708.
- AB The compns. contain (A) compds. contg. (meth)acryloyl  
groups and (B) **radiation polymer**. initiators with  
groups shown as [CMe(p-C<sub>6</sub>H<sub>4</sub>COCR<sub>1</sub>R<sub>2</sub>OH)CH<sub>2</sub>]<sub>n</sub> (R<sub>1</sub>-R<sub>2</sub> = C<sub>1</sub>-5 alkyl; n =  
no. of repeating units). The compns. have excellent transparency,  
dimensional stability, and weather resistance and are useful for  
optical materials such as lenses, optical disks, prisms, etc. Thus,  
100 parts a compn. comprising Ripoxy VR 77 (bisphenol A diglycidyl  
ether polymer acrylate) 50, Aronix M 110 30, phenoxy diethylene  
glycol acrylate 10, and ACMO 10 parts was mixed with 5 parts Esacure  
KIP 150 [2-hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propane-1-one  
oligomer], applied on a glass plate, and exposed to UV to give a  
**cured** film showing **light** transmittance at 400,  
500, and 600 nm 85, 99, and 100%, reps. and color difference  
(.DELTA.E) 5 after 7-day exposure to UV. A polyethylene  
terephthalate film coated with the compn. was kept at 60.degree. for  
2 h, showing av. warpage 5 mm.
- IT 115055-18-0, Esacure KIP 150  
(Esacure KIP 150; **radiation-curable acrylic**  
**polymer** compns. contg. photoinitiators for transparent  
cast moldings for optical materials)
- RN 115055-18-0 HCA
- CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



- IC ICM C08F299-00  
ICS C08F002-50; C08F004-00
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38, 73
- ST **radiation curable acrylic polymer** cast  
molding; transparency **radiation curable acrylic**  
**polymer** casting; weather resistance **radiation**  
**curable acrylic polymer**; hydroxymethyl methylvinyl  
phenyl propane polymn initiator; optical material **UV**  
**curable acrylic polymer**
- IT **Polymerization catalysts**  
(**photopolymn.**; **radiation-curable**  
acrylic **polymer** compns. contg. photoinitiators for  
transparent cast moldings for optical materials)
- IT Casting of **polymeric** materials  
Optical materials  
Transparent materials  
(**radiation-curable acrylic polymer**  
compns. contg. photoinitiators for transparent cast moldings for  
optical materials)
- IT 115055-18-0, Esacure KIP 150  
(Esacure KIP 150; **radiation-curable acrylic**  
**polymer** compns. contg. photoinitiators for transparent  
cast moldings for optical materials)
- IT 149260-52-6, Esacure KIP 100F  
(**radiation-curable acrylic polymer**  
compns. contg. photoinitiators for transparent cast moldings for  
optical materials)
- IT 202400-99-5P  
(**radiation-curable acrylic polymer**  
compns. contg. photoinitiators for transparent cast moldings for  
optical materials)

electronic device sealing materials. Hibino, Satoru (Three Bond Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07033837 A2 19950203 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-199912 19930720.

AB The compns. contain oligomers comprising butadiene-based resins having polymerizable ethylenically unsatd. double bonds at their terminals and/or side chains and contg. .gtoreq.50% butadiene homopolymers contg. .gtoreq.50% 1,4-butadienes or 100 parts resins contg. 20-100% the butadiene-based resins and 0-80% resins comprising monomers contg. .gtoreq.1 polymerizable ethylenically unsatd. double bond and 1-5 parts photoinitiators. Thus, 100 parts Poly bd R-45ACR-LC (polybutadiene-based resin) and 2 parts 1-hydroxycyclohexylphenyl ketone were mixed to obtain a **photocurable** resin compn., which was applied on a magnetic hard disk drive, and **cured** by **UV radiation**, the resulted sealing material showed good reliability and low volatiles.

IT 115055-18-0  
(**photocurable** resins compns. contg. ethylenic polybutadienes, (meth)acrylic monomers, and photoinitiators for elec. device packaging)

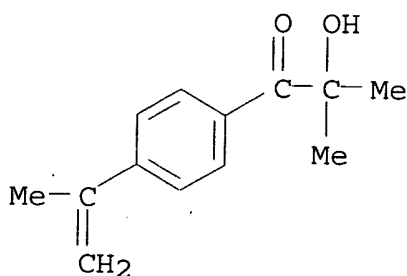
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08F290-04

ICS C08F002-48; C08F290-12

CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 37

ST **photocurable** resin butadiene sealing material; ethylenic polybutadiene acrylate sealant **photocuring**; photoinitiator polybutadiene methacrylate electronic sealant; elec sealing material **photocurable** resin

IT Sealing compositions

(**UV-curable**, **photocurable** resins  
compns. contg. ethylenic polybutadienes, (meth)acrylic monomers,

- and photoinitiators for elec. device packaging)
- IT Rubber, butadiene, uses  
 (acrylate-terminated, 1,2-configuration, Poly bd-R 45ACR-LC;  
**photocurable** resins compns. contg. ethylenic  
 polybutadienes, (meth)acrylic monomers, and photoinitiators for  
 elec. device packaging)
- IT Polymerization catalysts  
 (photochem., **photocurable** resins compns. contg.  
 ethylenic polybutadienes, (meth)acrylic monomers, and  
 photoinitiators for elec. device packaging)
- IT 119-61-9, Benzophenone, uses 947-19-3, 1-Hydroxycyclohexyl phenyl  
 ketone 7473-98-5 13840-40-9D, Phosphine oxide, acyl derivs.  
 15206-55-0, Methylbenzoyl formate 24650-42-8 71868-10-5  
 110430-11-0 **115055-18-0** 119313-12-1  
 (**photocurable** resins compns. contg. ethylenic  
 polybutadienes, (meth)acrylic monomers, and photoinitiators for  
 elec. device packaging)
- IT 101-43-9DP, Cyclohexyl methacrylate, reaction products with  
 polybutadiene (meth)acrylates 109-16-0DP, Triethylene glycol  
 dimethacrylate, reaction products with polybutadiene (meth)acrylates  
 109-17-1DP, Tetraethylene glycol dimethacrylate, reaction products  
 with polybutadiene (meth)acrylates 142-90-5DP, Lauryl  
 methacrylate, reaction products with polybutadiene (meth)acrylates  
 868-77-9DP, 2-Hydroxyethyl methacrylate, reaction products with  
 polybutadiene acrylates 923-26-2DP, 2-Hydroxypropyl methacrylate,  
 reaction products with polybutadiene acrylates 2399-48-6DP,  
 Tetrahydrofurfuryl acrylate, reaction products with polybutadiene  
 (meth)acrylates 5888-33-5DP, Isobornyl acrylate, reaction products  
 with polybutadiene acrylates 7534-94-3DP, Isobornyl methacrylate,  
 reaction products with polybutadiene (meth)acrylates 10595-06-9DP,  
 2-Phenoxyethyl methacrylate, reaction products with polybutadiene  
 (meth)acrylates 16969-10-1DP, 2-Hydroxy-3-phenoxypropyl acrylate,  
 reaction products with polybutadiene (meth)acrylates 34759-34-7DP,  
 reaction products with polybutadiene (meth)acrylates 42594-17-2DP,  
 reaction products with polybutadiene (meth)acrylates 42978-66-5DP,  
 Tripropylene glycol diacrylate, reaction products with polybutadiene  
 (meth)acrylates 48145-04-6DP, 2-Phenoxyethyl acrylate, reaction  
 products with polybutadiene (meth)acrylates 68169-12-0DP,  
 Dicyclopentenylloxyethyl acrylate, reaction products with  
 polybutadiene (meth)acrylates 79637-74-4DP, reaction products with  
 polybutadiene (meth)acrylates 103831-37-4DP, Nonapropylene glycol  
 dimethacrylate, reaction products with polybutadiene (meth)acrylates  
 (**photocurable** resins compns. contg. ethylenic  
 polybutadienes, (meth)acrylic monomers, and photoinitiators for  
 elec. device packaging)
- IT 159446-74-9, BAC 45  
 (polybutadiene diacrylate, 1,2-configuration;  
**photocurable** resins compns. contg. ethylenic  
 polybutadienes, (meth)acrylic monomers, and photoinitiators for  
 elec. device packaging)
- IT 9003-17-2  
 (rubber, acrylate-terminated, 1,2-configuration, Poly bd-R



45ACR-LC; **photocurable** resins compns. contg. ethylenic polybutadienes, (meth)acrylic monomers, and photoinitiators for elec. device packaging)

L45 ANSWER 16 OF 16 HCA COPYRIGHT 2003 ACS

113:192642 **Photopolymerizable** liquid composition, viscoelastic product obtained from the composition, and process for producing the viscoelastic product. Nakasuga, Akira (Sekisui Chemical Co., Ltd., Japan). Eur. Pat. Appl. EP 373662 A2 19900620, 11 pp. DESIGNATED STATES: R: DE, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1989-123188 19891214. PRIORITY: JP 1988-315998 19881214.

AB The title high-mol.-wt. viscoelastic products, useful in adhesive tapes, are prepd. by photochem. polymn. of a compn. comprising an alkyl (meth)acrylate and a **photopolymn.** initiator bearing .gtoreq.2 photocleavagable bonds/mol. A mixt. of 2-ethylhexyl acrylate 97, acrylic acid 3, and a polyfunctional initiator (prepd. by reaction of 5 parts Duracure 2959 and 2.76 parts isophorone diisocyanate) 1 part was impregnated in a nonwoven fabric, sandwiched between transparent polyester films, and irradiated with 10 mW/cm<sup>2</sup> light for 4.5 min, giving a double-side pressure-sensitive adhesive tape with tack strength 1140 g/25 mm and holding power (to a steel plate with 1 kg load) 0.1 h.

IT 115055-18-0

(oligomeric, photoinitiators for acrylate monomers)

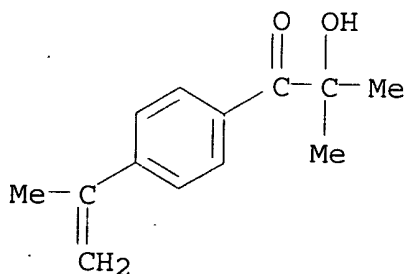
RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5

CMF C13 H16 O2



IC ICM C08F020-12

ICS C08F002-50; C09J133-06; C09J007-02

CC 37-3 (Plastics Manufacture and Processing)

ST **photopolymn** initiator polyfunctional; acrylate monomer

**photopolymn**; adhesive tape pressure sensitive

IT Adhesive tapes

(pressure-sensitive, double-side, **photopolymd.** acrylate

polymers for)  
IT 115055-18-0  
(oligomeric, photoinitiators for acrylate monomers)  
IT 4098-71-9DP, Isophorone diisocyanate, reaction products with  
Darocure 2959 106797-53-9DP, reaction products with isophorone  
diisocyanate  
(prepn. of, as polyfunctional photopolymn. initiators  
for acrylate monomers)

=> d l46 1-2 ti

L46 ANSWER 1 OF 2 HCA COPYRIGHT 2003 ACS

TI Non-yellowing rapid drying nail polish top-coat compositions  
containing cellulose acetate butyrate and an aliphatic ester

L46 ANSWER 2 OF 2 HCA COPYRIGHT 2003 ACS

TI Reactivity and excited state processes in a polymeric photoinitiator

=> d l46 1 cbib abs hitstr hitrn

L46 ANSWER 1 OF 2 HCA COPYRIGHT 2003 ACS

129:153016 Non-yellowing rapid drying nail polish top-coat compositions  
containing cellulose acetate butyrate and an aliphatic ester.  
Sirdesai, Sunil J.; Schaeffer, George (OPI Products, Inc., USA).  
U.S. US 5785958 A 19980728, 7 pp. (English). CODEN: USXXAM.  
APPLICATION: US 1995-558638 19951113.

AB Rapid drying top coat used to provide a durable glossy look to  
manicured nails. The rapid-drying, durable coating compn. is  
comprised of a base resin of cellulose acetate butyrate and an  
aliph. ester monomer. Addnl. components include a film former, a  
crosslinking agent, an inhibitor to polymn. and a solvent. The  
rapid drying nail polish top-coat compn. cures to a hard durable  
finish within a few minutes on exposure either to safe dosage of UV  
light or any heat source depending whether the formulation contains  
a photoinitiator or thermal initiator. This process of curing also  
aids in drying the inner layers of nail polish application by evapg.  
the solvents in these layers. The top coats are non-toxic and  
exhibit an unique property of non-yellowing. A nail polish  
contained Et acetate 40, Bu acetate 30, iso-Pr alc. 4.2, Et  
methacrylate 3.0, ethylene glycol dimethacrylate 0.3, Darocur 1173  
0.3, Rohagum PM685 11, cellulose acetate butyrate 381-0.5 6.7,  
cellulose acetate butyrate 381-2.0 4.5%, and 4-methoxy phenol 5 ppm.

IT 115055-18-0

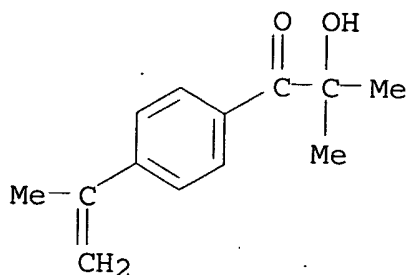
(non-yellowing rapid drying nail polish top-coat compns. contg.  
cellulose acetate butyrate and aliph. ester)

RN 115055-18-0 HCA

CN 1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 101649-40-5  
CMF C13 H16 O2



IT 115055-18-0  
(non-yellowing rapid drying nail polish top-coat compns. contg.  
cellulose acetate butyrate and aliph. ester)